Pioneer *sound.vision.soul*

RCS-55 | DVD Recorder Home Cinema System

SX-SW55 | Audio Multi-channel Receiver Subwoofer

S-ST550 | Speaker System

DVR-230-AV | DVD Recorder

Discover the benefits of registering your product online at www.pioneer.uk (www.pioneer-eur.com)

Operating Instructions

IMPORTANT

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

D3-4-2-1-1_En-A

WARNING

This equipment is not waterproof. To prevent a fire or shock hazard, do not place any container filed with liquid near this equipment (such as a vase or flower pot) or expose it to dripping, splashing, rain or moisture. D3-4-2-1-3_A_En

Operating Environment

Operating environment temperature and humidity:
+5 °C – +35 °C (+41 °F – +95 °F); less than 85 %RH
(cooling vents not blocked)
Do not install this unit in a poorly ventilated area, or in locations exposed to high humidity or direct sunlight (or strong artificial light) D3-4-2-1-7c_A_En

WARNING

To prevent a fire hazard, do not place any naked flame sources (such as a lighted candle) on the equipment. D3-4-2-1-7a_A_En

This product complies with the Low Voltage Directive (73/23/EEC, amended by 93/68/EEC), EMC Directives (89/336/EEC, amended by 92/31/EEC and 93/68/EEC). D3-4-2-1-9a_En

WARNING

Before plugging in for the first time, read the following section carefully.

The voltage of the available power supply differs according to country or region. Be sure that the power supply voltage of the area where this unit will be used meets the required voltage (e.g., 230V or 120V) written on the rear panel. D3-4-2-1-4_A_En

This product is for general household purposes. Any failure due to use for other than household purposes (such as long-term use for business purposes in a restaurant or use in a car or ship) and which requires repair will be charged for even during the warranty period. K041_En

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

CAUTION
This product is a class 1 laser product, but this product contains a laser diode higher than Class 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel.

CLASS 1
LASER PRODUCT

The following caution label appears on your unit.
Location: inside of the unit

CAUTION	CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO THE BEAM.
ATTENTION	RADIATIONS LASER VISIBLES ET INVISIBLES DE CLASSE 3B QUAND OUVERT. ÉVITEZ TOUT EXPOSITION AU FAISCEAU.
ADVARSEL	KLASSE 3B SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARNING	KLASS 3B SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. UNDVIK ATT UTSÄTTA DIG FÖR STRÅLEN.
VORSICHT	BEI GEÖFFNETER ABDECKUNG IST SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG DER KLASSE 3B IM GERÄTEINNEREN VORHANDEN. AUGEN NICHT DEM LASERSTRAHLAUSSETZEN!
PRECAUCIAÓN	CUANDO SE ABRE HAY RADIACIÓN LÁSER DE CLASE 3B VISIBLE E INVISIBLE. EVITE LA EXPOSICIÓN A LOS RAYOS LÁSER.
VARO!	AVATTAESSA OLET ALTTIINA NÄKYVÄLLE JA NÄKYMÄTTÖMÄLLE LUOKAN 3B LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
注意	ここを開くと CLASS 3B の可視レーザ光及び不可視レーザ光が出ます。ビームを直接見たり、触れたりしないこと。

DRW2247 - A

D3-4-2-1-8_A_En

If the AC plug of this unit does not match the AC outlet you want to use, the plug must be removed and appropriate one fitted. Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel. If connected to an AC outlet, the cut-off plug can cause severe electrical shock. Make sure it is properly disposed of after removal.
The equipment should be disconnected by removing the mains plug from the wall socket when left unused for a long period of time (for example, when on vacation). **D3-4-2-2-1a_A_En**

CAUTION
The ⏻ STANDBY/ON switch on this unit will not completely shut off all power from the AC outlet. Since the power cord serves as the main disconnect device for the unit, you will need to unplug it from the AC outlet to shut down all power. Therefore, make sure the unit has been installed so that the power cord can be easily unplugged from the AC outlet in case of an accident. To avoid fire hazard, the power cord should also be unplugged from the AC outlet when left unused for a long period of time (for example, when on vacation).

POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement. **S002_En**

VENTILATION CAUTION (Receiver subwoofer)

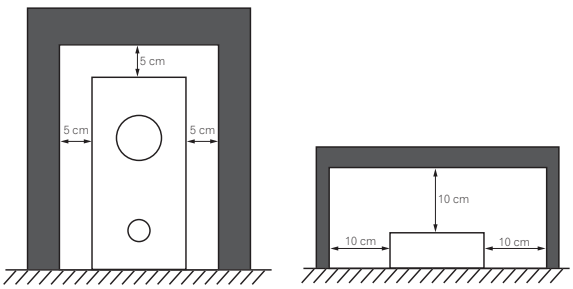
When installing this unit, make sure to leave space around the unit for ventilation to improve heat radiation (at least 5 cm at top, 5 cm at rear, and 5 cm at each side).

VENTILATION CAUTION (DVD Recorder)

When installing this unit, make sure to leave space around the unit for ventilation to improve heat radiation (at least 10 cm at top, 10 cm at rear, and 10 cm at each side).

WARNING

Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product, and to protect it from overheating. To prevent fire hazard, the openings should never be blocked or covered with items (such as newspapers, table-cloths, curtains) or by operating the equipment on thick carpet or a bed. **D3-4-2-1-7b_A_En**



Receiver subwoofer DVD Recorder

This product includes FontAvenue® fonts licenced by NEC corporation. FontAvenue is a registered trademark of NEC Corporation.

Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel.

IMPORTANT

FOR USE IN THE UNITED KINGDOM

The wires in this mains lead are coloured in accordance with the following code:

Blue : Neutral
Brown : Live

If the plug provided is unsuitable for your socket outlets, the plug must be cut off and a suitable plug fitted.

The cut-off plug should be disposed of and must not be inserted into any 13 amp socket as this can result in electric shock. The plug or adaptor or the distribution panel should be provided with 5 A fuse. As the colours of the wires in the mains lead of this appliance may not correspond with coloured markings identifying the terminals in your plug, proceed as follows ;
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Do not connect either wire to the earth terminal of a three pin plug.

NOTE
After replacing or changing a fuse, the fuse cover in the plug must be replaced with a fuse cover which corresponds to the colour of the insert in the base of the plug or the word that is embossed on the base of the plug, and the appliance must not be used without a fuse cover. If lost replacement fuse covers can be obtained from your dealer.
Only 5 A fuses approved by B.S.I or A.S.T.A to B.S.1362 should be used.
D3-4-2-1-2-2_En

Thank you for buying this Pioneer product.

Please read through these operating instructions so that you will know how to operate your model properly. After you have finished reading the instructions, put them in a safe place for future reference.

Features

1 Home cinema system with the latest features

This unit is equipped with a variety of the latest features for DVD recording.

- Long time recording

  12 hours recording/Video mode

  10 hours recording/VR mode
- Ease of use

  VIDEO Plus+® system* (page 67)

  Advanced Disc Navigator (moving thumbnail) (page 56, 73)

* VIDEO Plus+ *and PlusCode are registered trademark of Gemstar Development Corporation.*

The VIDEO Plus+ system is manufactured under license from Gemstar Development Corporation.

2 Sub-woofer with 5.1ch receiver function

This unit includes a subwoofer equipped with 5.1 channel amplifier and FM/AM tuner with RDS support.

The receiver is equipped with Dolby Digital, Dolby Pro Logic II, and DTS decoders for the ultimate in live listening presence.

Advanced surround modes are also provided to allow you to select your own uniquely designed listening environment (page 22).

3 Includes a separate display for greater freedom in installation layout.

The separate display makes it easy to choose the optimum layout for your installation location. Choose the setting that provides the best storage and viewing position.

The separate display is provided with control buttons, allowing you to perform basic operations at the display alone, without using the remote. On the other hand, the separate display is also equipped with a remote control receiver, allowing you to operate the unit by pointing the remote at the display instead of at the DVD recorder or subwoofer (page 20).

4 Three-spot front surround setting allows two kinds of speaker placement

In addition to the conventional 5.1ch speaker placement, the rear (surround) speakers can be placed in the front if desired, thus producing a 3-spot front surround setting with the same kind of sound field as the normal 5.1ch arrangement. This provides greater freedom in speaker placement to match different sound environments and room conditions.

For example, the 3-spot front setting can be used in cases where the listening room has no space for the placement of surround (rear) speakers, or in cases where speaker wiring to the rear would be particularly difficult.

To produce the most lifelike ambience from the 3-spot front setting, original surround modes (Front Surround Movie / Front Surround Music / Extra Power) are provided thus allowing you to create genuine 5.1ch audio ambience and a sense of spatial movement not possible with conventional virtual surround systems (page 6).

5 Connect a wide range of sources

Three digital input connector systems and one analog input connector system are provided, allowing you to connect sound from a variety of television monitors, satellite tuners and other components (page 29).

6 Environmentally conscious design

The subwoofer with its 5.1ch amplifier consumes less than 0.5W of energy in standby mode, providing economic, environmentally conscious operation.

Contents

❖ Section One

01Features **4**

02Contents **5**

What's in the box **5**

03Speaker Setup Guide **6**

Safety precautions when setting up **6**
Home theater sound setup **6**
Wall mounting the front and surround speaker system **8**
Attaching the brackets **8**
Before mounting **8**

04Connecting up **9**

Basic connections **9**
Using this system for TV audio **12**

05Remote control **13**

Using the remote control **15**
Putting the batteries in the remote control **15**

06Before you start **16**

Switching on **16**
Setting up **16**
Basic operation **17**
Watching a DVD **17**
Listening to a CD **17**
Listening to the radio **17**

❖ Section Two

Operating instructions for the Audio Multi-channel Receiver Subwoofer and Speaker System **18**

❖ Section Three

Operating intructions for the DVD Recorder **34**

What's in the box

Please confirm that the following items are all supplied.

Receiver subwoofer (SX–SW55) box:

- Remote control (page 13)
- AA/R6P dry cell batteries x2 (page 15)
- Display unit (page 20)
- Power cord (page 11)
- AM loop antenna (page 9)
- FM wire antenna (page 9)
- Control cable (page 9)
- Display cable (page 9)
- Coaxial cable (page 9)
- These operating instructions
- Warranty card

DVD recorder (DVR–230-AV) box:

- Audio/video cable (red/white/yellow) (page 11)
- RF antenna cable (page 11)
- Power cord (page 11)

Speakers (S–ST550) box:

- Speakers (front x2, surround x2, center x1) (page 11)
- Non-skid pads (small) x12 (page 6)
- Non-skid pads (large) x4 (page 6)
- Mounting Brackets x4 (page 8)
- Screws (for mounting brackets) x4 (page 8)

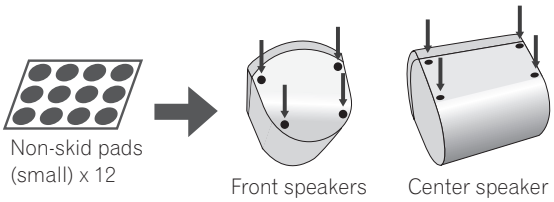
Speaker Setup Guide

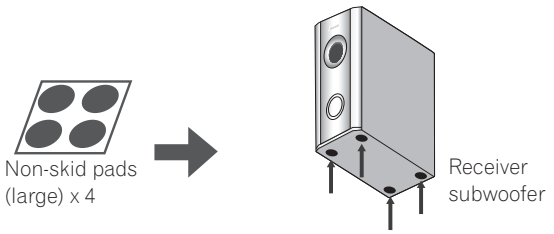
Safety precautions when setting up

When assembling the speakers, lay them down flat on their side to avoid accidents or injury. Make sure to use a stable surface when assembling, setting up, and placing the speakers.

- **Attach the smaller non-skid pads to the base of each of the front speakers and the center speaker. The four large non-skid pads are for the receiver subwoofer (as shown).**

Use the supplied adhesive to attach 4 pads to the base (flat surface) of each speaker.

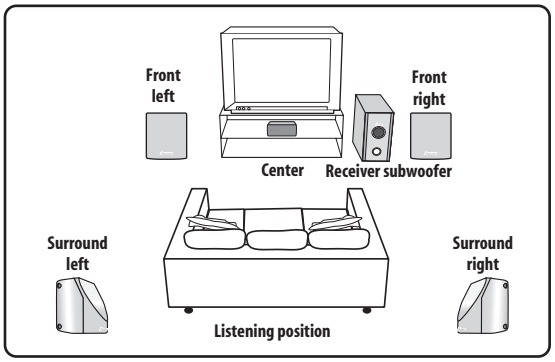




Home theater sound setup

Depending on the size and characteristics of your room, you can place your speakers in one of two ways using this system:[1]

- **Standard surround 5-spot setup** – This is a standard multichannel surround sound speaker setup for optimal 5.1 channel home theater sound.



- **Connect the speaker system.**

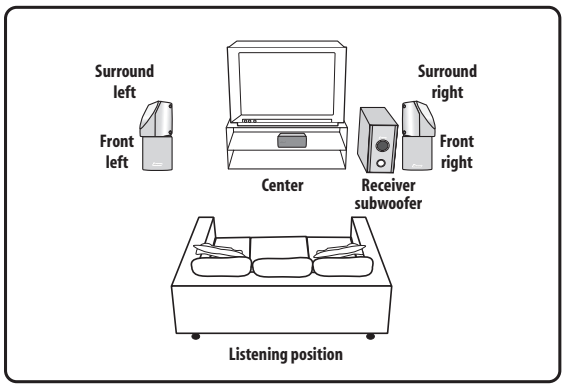
Refer to *Connecting up* to connect the speakers properly. Place them as shown in the diagram above for optimal surround sound.

After placing your speakers, complete *Channel level setting* on page 27 then refer to *Speaker distance setting* on page 27 to complete your surround sound setup.

Note

1 See *About the listening modes* on page 22 for more on using the different listening modes with each speaker setup.

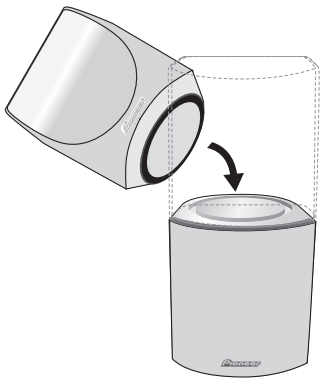
- **Front surround 3-spot setup** – This setup is ideal when rear surround speaker placement isn't possible or you want to avoid running long speaker cables in your listening area. Use this setup together with the Front Surround modes in page 23 to take advantage of wall and ceiling reflections for a very realistic surround effect.



1 Connect the speaker system.

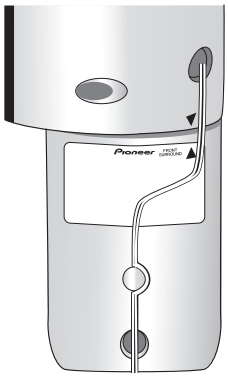
Refer to *Connecting up* to connect the speakers properly. Place them as shown in the diagram above for optimal surround sound.

The base of each surround speaker fits into the circular groove on the top of the front speakers as shown.



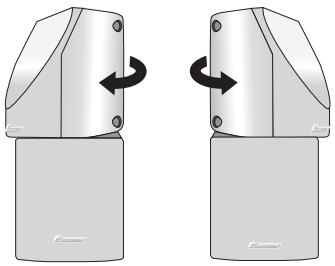
2 Secure the speaker wire.

After testing for the slack necessary to turn the speaker (see the following step), use the groove provided to secure the speaker wire as shown. Leave 5 cm of slack from the speaker terminals so the upper (surround) speaker can turn freely.

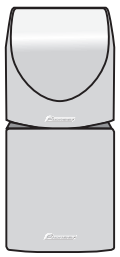


3 Turn the surround speakers towards the closest wall, lining the arrows up for optimal Front Surround.

Turn each surround speaker so that the ▼ arrow at the base is lined up with the ▲ **FRONT SURROUND** arrow on the front speaker. This is only necessary with the **FRTMOVIE** or **FRTMUSIC** modes. With **EXTPOWER** (Extra Power), line up the ▼ arrow with the ▲ **EXTRA POWER** arrow (the surround speakers should be in the same direction as the front speakers.). See *Using Front Surround* on page 23 for more informations.



FRTMOVIE / **FRTMUSIC**



EXTPOWER

Caution

- To prevent accidents, make sure the surround speaker is placed securely on top of the front speaker.
- Please don't attach the speakers to the wall or speaker stands for Front surround 3-spot setup.

Wall mounting the front and surround speaker system

Attaching the brackets

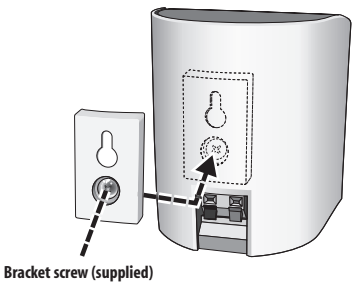
- Make sure to tighten the supplied screw as securely as possible when attaching the bracket to the back of the speaker.
- Please do not attach the brackets to the center speaker.

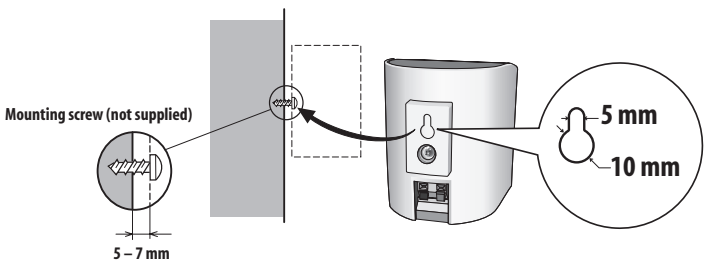
Before mounting

- Remember that the speaker system is heavy and that its weight could cause the wood screws to work loose, or the wall material to fail to support it, resulting in the speaker falling. Make sure that the wall on which you intend to mount the speakers is strong enough to support them. Do not mount on plywood or soft surface walls.
- Mounting screws are not supplied. Use screws that are suitable for the wall material and that will support the weight of the speaker.
- If you are unsure of the qualities and strength of the wall, consult a professional for advice.
- Pioneer is not responsible for any accidents or damage that result from improper installation.

Additional notes on speaker placement

- Install the main front left and right speakers at an equal distance from the TV.
- For optimum effect, install the rear speakers slightly above ear level.
- Install the center speaker above or below the TV so that the sound of the center channel is localized at the TV screen.
- When installing the center speaker on top of the TV, be sure to secure it with suitable means. Otherwise, the speaker may fall from the TV due to external shocks such as earthquakes, endangering those nearby or damaging the speaker.
- This front, center and surround speakers supplied with this system are magnetically shielded. However, depending on the installation location, color distortion may occur if the speaker is installed extremely close to the screen of a television set. If this happens, turn the power switch of the television set OFF, and turn it ON after 15 to 30 minutes. If the problem persists, place the speaker system away from the television set.
- The receiver subwoofer is not magnetically shielded and so should not be placed near a TV or monitor. Magnetic storage media (such as floppy discs and tape or video cassettes) should also not be kept close to the receiver subwoofer.
- Do not fix the front or center speakers, or the receiver subwoofer to the wall or ceiling; they could cause injury if they fell.





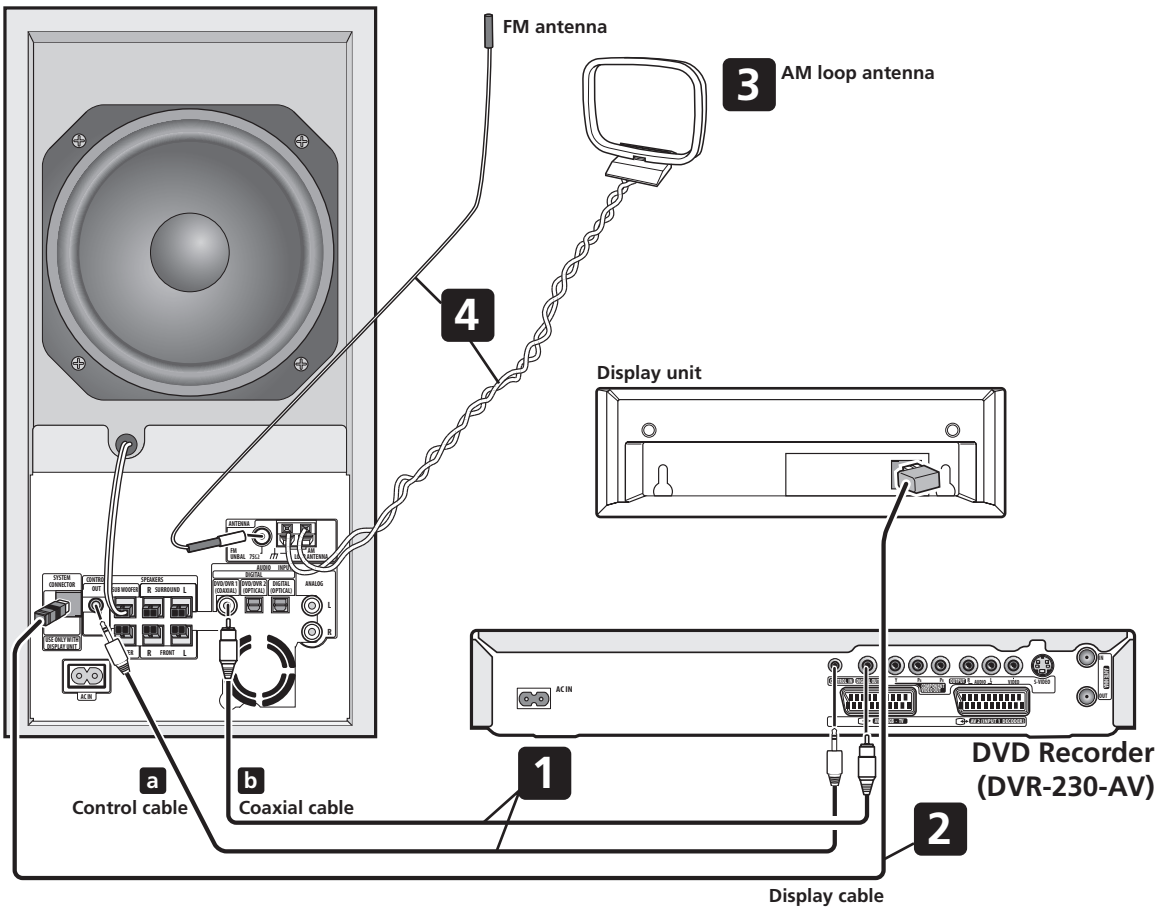
Connecting up

Basic connections

Important

- When connecting this system or changing connections, be sure to switch power off and disconnect the power cord from the wall socket.
  After completing all connections, connect the power cord to the wall socket.

Receiver subwoofer (SX-SW55)



1 Connect the DVD recorder to the receiver subwoofer.

a. Plug the control cable into the control jack on the rear of the receiver subwoofer.

Plug the other end of the cable into the control jack on the rear of the DVD recorder.

b. Plug the coaxial cable into the **DIGITAL AUDIO INPUT (DVD/DVR 1)** jack on the rear of the receiver subwoofer.

Plug the other end of the cable into the **COAXIAL DIGITAL OUT** jack on the rear of the DVD recorder.

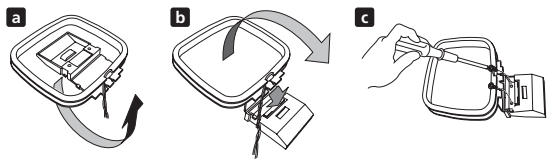
Note that unless the control cable is connected, you can't use the remore control with the DVD recorder.

2 Connect the display unit to the receiver subwoofer.

- Plug the L-shaped end of the display cable into the connector on the rear of the display unit.

  Plug the other end of the display cable into **SYSTEM CONNECTOR** jack on the receiver subwoofer.

3 Assemble the AM loop antenna.



a. Bend the stand in the direction indicated by the arrow.

b. Clip the loop onto the stand.

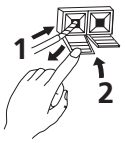
c. If you want to fix to a wall or other surface, perform step b after first securing the stand with screws.

It is recommended that you determine the reception strength before securing the stand with the screws.

4 Connect the AM and FM antennas[1].

a. Connect one wire of the AM loop antenna to each AM antenna terminal[2].

For each terminal, press down on the tab to open; insert the wire, then release to secure.

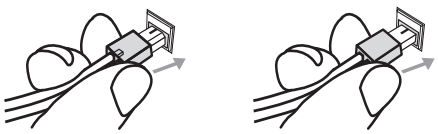


b. Push the FM antenna[3] plug onto the center pin of the FM antenna socket.

5 Connect each speaker.

- Match the color-coded speaker plugs to the color-coded speaker terminals on the rear of the receiver subwoofer. Make sure to insert completely.

  The small lug at the wire-end of the speaker plug should face up or down depending on whether it's being plugged into one of the upper or lower speaker terminals. Please make sure to connect correctly.



Upper terminal Lower terminal

6 Connect the subwoofer cable.

- Just below the subwoofer speaker, to the left of center, you should see the subwoofer connecting cable. Plug this into the **SUBWOOFER SPEAKER** terminal.

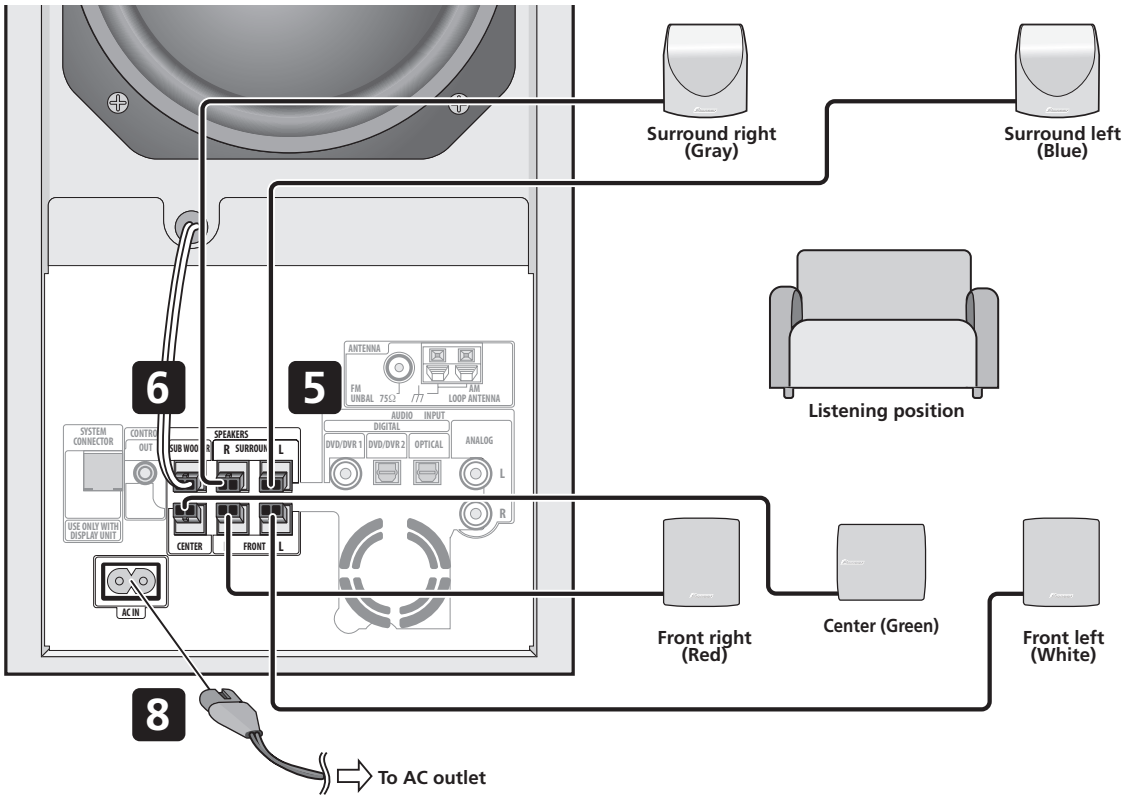
Note

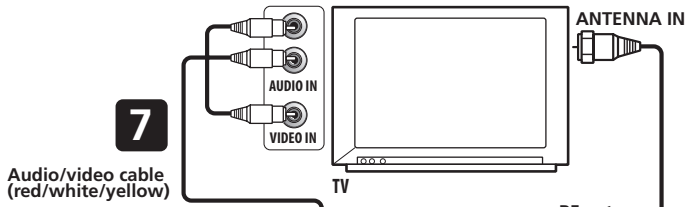
1 • Keep antenna cables away from other cables, the display unit, receiver subwoofer and DVD recorder.
• If reception with the supplied antenna is poor, see *Improving poor FM reception* and *Improving poor AM sound* on page 25 or *Connecting external antennas* on page 29.

2 • Don't let it come into contact with metal objects and avoid placing near computers, television sets or other electrical appliances.
• The signal earth (⏚) is designed to reduce noise that occurs when an antenna is connected. It is not an electrical safety earth.
• If radio reception is poor, you may be able improve it by re-inserting each antenna wire into the opposite terminal.
• For best reception, do not untwist the AM loop antenna wires or wrap them around the loop antenna.

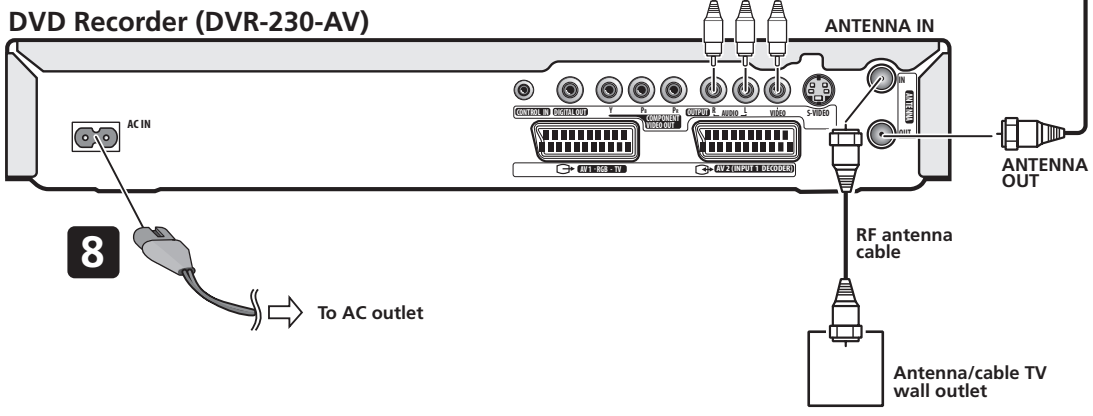
3 • To ensure optimum reception, make sure the FM antenna is fully extended and not coiled or hanging at the rear of the unit.

Receiver subwoofer (SX-SW55)





DVD Recorder (DVR-230-AV)



Caution

- These speaker terminals carry **HAZARDOUS LIVE voltage**. To prevent the risk of electric shock when connecting or disconnecting the speaker cables, disconnect the power cord before touching any uninsulated parts.
- Do not connect any speakers other than those supplied to this system.
- Do not connect the supplied speakers to any amplifier other than the one supplied with this system. Connection to any other amplifier may result in malfunction or fire.

7 Connect the DVD recorder to your TV.[1]

- Connect the **VIDEO OUTPUT** jack to a video input on your TV.

  Use the yellow jack of the supplied audio/video cable for the video connection.
- Connect the **AUDIO OUTPUT** jacks to the corresponding audio inputs on your TV.

  Use the red and white jacks of the supplied audio/video cable for the audio connection. Make sure you match the left and right outputs with their corresponding inputs for correct stereo sound.

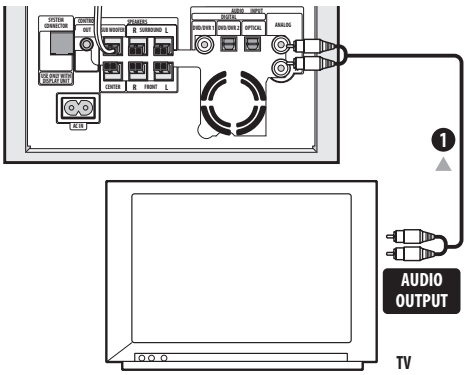
8 Connect the power cord.[2]

- Connect the power cords to AC inlets on the receiver subwoofer and DVD recorder.

  Connect the power cords to a wall socket.

Using this system for TV audio

If your TV has a stereo audio output you can connect it to this system and enjoy surround TV sound.



1 Connect the AUDIO OUTPUT jacks on your TV to the ANALOG AUDIO INPUT jacks on the receiver subwoofer.

Use the red/white stereo audio cable (not supplied) for this connection. Make sure you match the left and right outputs with their corresponding inputs for correct stereo sound.

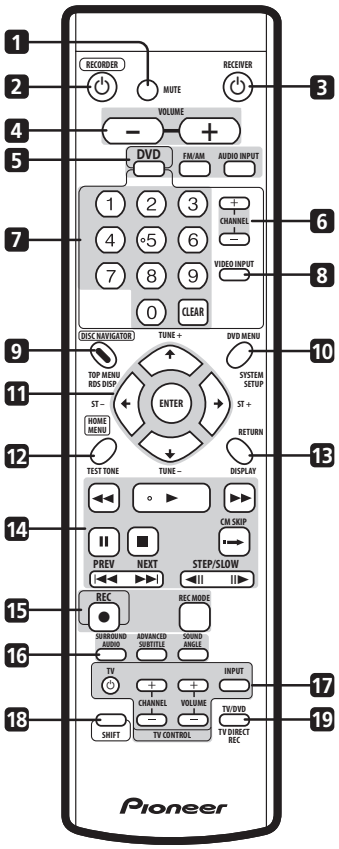
- You can use the **ANALOG** input jacks for any analog source you want, such as a tape deck, etc.

Note

1 Other types of video connection are possible. See page 41-page 45 for more information.

2 • Do not use any power cord other than the one supplied with this system.
• Do not use the supplied power cord for any purpose other than connecting to this system.

Remote control



Important

- Functions printed in green on the remote control are accessed by pressing the button indicated while holding down the **SHIFT** button.

1 MUTE
Press to mute all audio from the speakers. Press again to cancel and restore the sound.

2 ⏻ RECORDER
Press to switch the recorder on or into standby.

3 ⏻ RECEIVER
Press to switch the receiver on or into standby.

4 VOLUME +/–
Use to adjust the volume.

5 Function select buttons

DVD
Press to select the receiver subwoofer's **DVD/DVR1** audio input.[1]

FM/AM (page 25)
Press to select the built-in radio tuner.

AUDIO INPUT (page 29)
Press repeatedly to select one of the receiver subwoofer's audio inputs (**DVD/DVR1**, **DVD/DVR2**, **DIGITAL** or **ANALOG**).

6 CHANNEL +/– (page 51)
Press to change the channel of the built-in TV tuner.

7 Numeric buttons and CLEAR
Use the number buttons for track/chapter/title selection; channel selection, and so on.

Use **CLEAR** to clear an entry and start again.

8 VIDEO INPUT (page 69)
Press to change the DVD recorder input for recording and playback.

9 DISC NAVIGATOR (page 56) **/ TOP MENU** (page 53)
Press to display the Disc Navigator screen, or the top menu if a DVD-Video disc is loaded.

+ SHIFT: RDS DISP
Changes RDS displays (page 26).

10 DVD MENU (page 53)
Press to display the disc menu if a DVD-Video disc is loaded.

+ SHIFT: SYSTEM SETUP
Use to access the menu system for surround sound setup, tuner settings and so on (page 21, 25, 26, 27, 30).

11 ↑/↓/←/→ (cursor buttons) and ENTER
Use to navigate all DVD recorder on-screen displays. Press **ENTER** to select the currently highlighted option.

Use together with the **SHIFT** button to navigate the receiver subwoofer menus.

12 HOME MENU (page 56)
Press to display the Home Menu, from which you can navigate many the functions of the system.

+ SHIFT: TEST TONE
Use to output the test tone (for speaker setup) (page 28).

Note
1 If the recorder is set to remote mode 2 or 3, the receiver subwoofer's audio input will not be switched. See also *Remote Control* on page 80.

13 RETURN
Press to go back one level in the on-screen menu or display.

+ SHIFT: DISPLAY (page 54)
Displays/changes the on-screen information displays.

14 Playback controls (page 52)

◄◄ / ►► (page 58)
Press to start reverse or forward scanning. Press again to change the speed.

►
Press to start playback.

II
Press to pause playback or recording.

■
Press to stop playback.

CM SKIP (commercial skip)
Press repeatedly to skip progressively forward through the audio or video playing.

I◄◄ PREV / NEXT ►►I
Press to skip to the previous or next title/chapter/track/folder; or to display the previous or next menu page.

◄II STEP/SLOW II► (page 58)
During playback, press to start slow-motion playback; while paused, press to show the previous or next video frame.

15 Recording controls (page 50)

● REC
Press to start recording. Press repeatedly to set the recording time in blocks of 30 mins.

REC MODE (page 65)
Press repeatedly to change the recording mode (picture quality).

16 DVD playback functions and surround sound mode/sound enhancement buttons

AUDIO (page 51, 62)
Changes the audio language or channel. (When no disc is playing or recording, press to change the tuner audio.)

+ SHIFT: SURROUND
Use to select a Surround mode (page 22).

SUBTITLE (page 61)
Displays/changes the subtitles included in multilingual DVD-Video discs.

+ SHIFT: ADVANCED
Use to select an Advanced Surround mode (page 23).

ANGLE (page 62)
Switches camera angles on discs with multi-angle scenes.

+ SHIFT: SOUND (page 24)
Press to access the sound menu, from which you can adjust bass and treble, etc.

17 TV CONTROL (page 90)
After setting up, use these controls to control your TV.

18 SHIFT
Press to access functions on the remote printed in green.

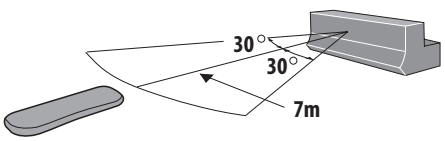
19 TV DIRECT REC (page 66)
Press to start recording whatever channel your TV is set to.

+ SHIFT: **TV/DVD** (page 52)
Press to switch between 'TV mode', in which you get the picture and sound from the TV's tuner, and 'DVD mode', in which you get picture and sound from the system's tuner (or an external input).

Using the remote control

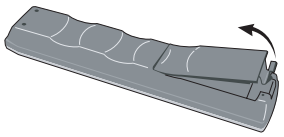
Please keep in mind the following when using the remote control:

- Make sure that there are no obstacles between the remote and the remote sensor on the unit.
- Remote operation may become unreliable if strong sunlight or fluorescent light is shining on the unit's remote sensor.
- Remote controllers for different devices can interfere with each other. Avoid using remotes for other equipment located close to this unit.
- Replace the batteries when you notice a fall off in the operating range of the remote.
- When the batteries run down or you change the batteries, the TV preset codes are automatically reset. See *Setting up the remote to control your TV* on page 90 to reset them.
- If you changed the remote control mode, this will also be reset when you change the batteries. See also *Remote Control* on page 80.
- Use within the operating range in front of the remote control sensor on the display unit, as shown.

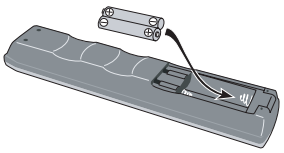


Putting the batteries in the remote control

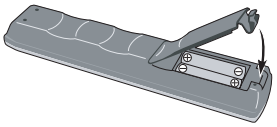
1 Open the battery compartment cover on the back of the remote control.



2 Insert two AA/R6P batteries into the battery compartment following the indications (⊕,⊖) inside the compartment.



3 Close the cover.



Caution

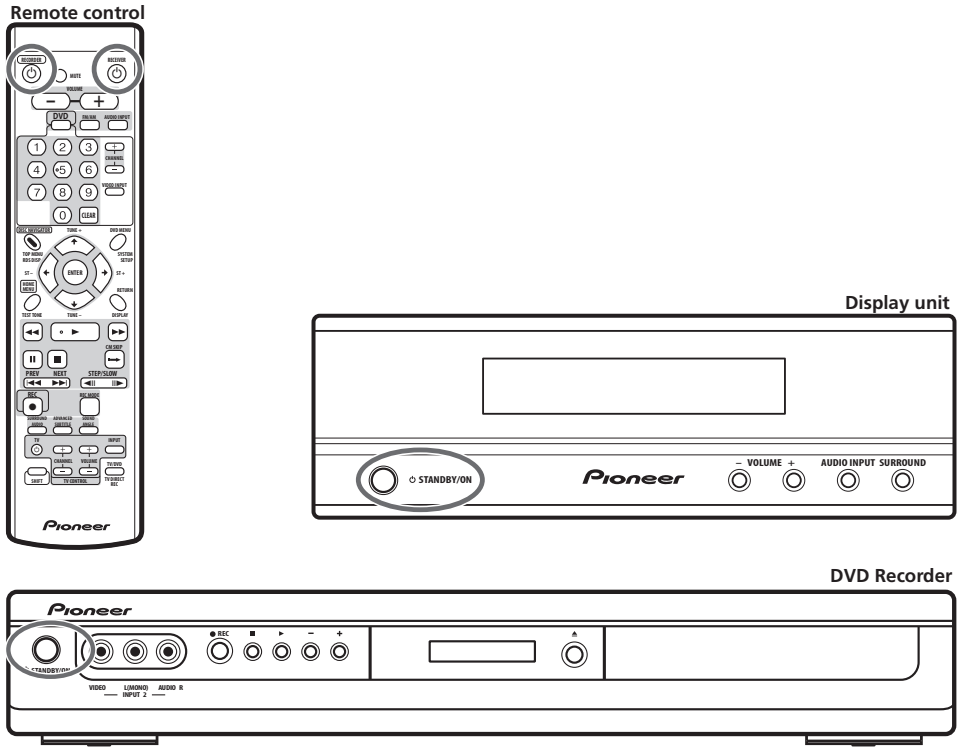
Incorrect use of batteries can result in hazards such as leakage and bursting. Please observe the following:

- Don't mix new and old batteries together.
- Don't use different kinds of battery together—although they may look similar, different batteries may have different voltages.
- Make sure that the plus and minus ends of each battery match the indications in the battery compartment.
- Remove batteries from equipment that isn't going to be used for a month or more.
- When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.

Before you start

Switching on

The DVD recorder and receiver subwoofer have separate power switches. The power switch for the receiver subwoofer is located on the display unit.



The table below shows what needs to be switched on for various system functions:

Function	Display unit	DVD recorder
DVD playback	On	On
CD playback	On	On
Radio	On	Off
Timer recording	Off	On

Setting up

After connecting and installing the DVD recorder and receiver subwoofer, complete the steps below to set the system up for use.

DVD recorder

- Set the date and time, TV channel tuning and the type of TV in the Setup Navigator (page 48).

Receiver subwoofer

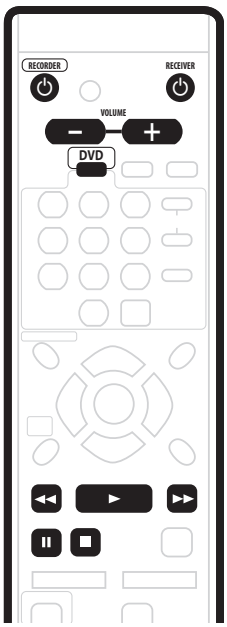
- Switch off the display demo mode (page 21).
- Complete the Room Setup to optimize the surround sound (page 21).

Basic operation

This manual is split into to parts, one covering using the receiver subwoofer, the other using the DVD recorder. Below are some common operations and where to find them explained in this manual.

Watching a DVD

Remember that when using the remote to control the DVD recorder, you should point the remote towards the display unit, not the recorder itslelf.



1 Switch on the display unit (receiver subwoofer).

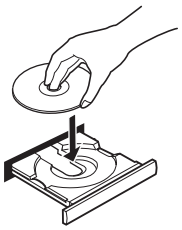
2 Switch on the DVD recorder.

3 Switch on your TV.
Turn on your TV and make sure that it is set to the correct video input.

4 Press DVD.

5 Press ▲ OPEN/CLOSE on the DVD recorder to open the disc tray.

6 Load a disc.
Load a disc with the label side facing up, using the disc tray guide to align the disc (if you're loading a double-sided DVD disc, load it with the side you want to play face-down).



7 Press ► (play) to start playback.

■	Press to stop playback. You can resume playback from the same point by pressing ►. (Press ■ again to cancel the resume function.)
❚❚	Pauses playback, or restarts playback when paused.
◄◄ ►►	Press to start scanning. Press repeatedly to increase the scanning speed.

See *Basic playback* on page 52 for more on playing discs.

8 Adjust the volume.

9 Adjust the sound using the surround effects
See *Listening to your system* on page 22 for details.

Listening to a CD

1 Switch on the display unit (receiver subwoofer).

2 Switch on the DVD recorder.

3 Press DVD.

4 Load a CD and start playback (page 53)**.**

5 Adjust the volume.

6 Adjust the sound using the surround effects (page 22)**.**

Listening to the radio

1 Switch on the display unit (receiver subwoofer).

2 Tune to a station (page 25)**.**

3 Adjust the volume.

4 Adjust the sound using the surround effects (page 22)**.**

AUDIO MULTI-CHANNEL RECEIVER SUBWOOFER

SX-SW55

SPEAKER SYSTEM

S-ST550

Contents

01 Controls and displays

Display unit 20
Display 20

02 Getting started

System demo setting 21
Using the Room Setup 21

03 Listening to your system

About the listening modes 22
Auto listening mode 22
Listening in surround sound 22
Using Front Surround 23
Using Advanced Surround 23
Listening in stereo 23
Enhancing dialogue 24
Adjusting the bass and treble 24
Boosting the bass level 24

04 Listening to the radio

Listening to the radio 25
Improving poor FM reception 25
Improving poor AM sound 25
Memorizing stations 25
Listening to station presets 26
An introduction to RDS 26
Displaying RDS information 26
Searching for RDS programs 26

05 Surround sound settings

Using the System Setup menu 27
Channel level setting 27
Speaker distance setting 27
Dynamic Range Control 28
Dual mono setting 28
Adjusting the channel levels using the test tone . . . 28

06 Other connections

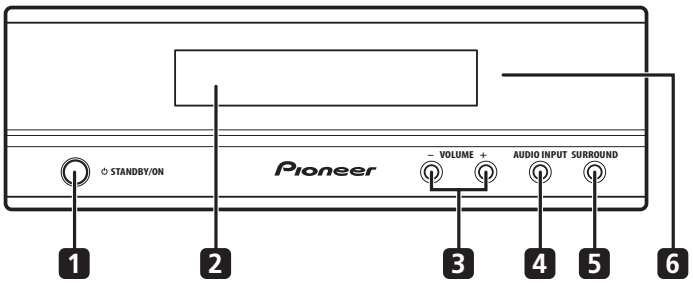
Connecting auxiliary components 29
Connecting an analog audio component 29
Listening to an external audio source 29
Connecting external antennas 29

07 Additional information

Setting the sleep timer 30
Dimming the display 30
DTS CD setting 30
Resetting the system 30
Installation and maintenance 31
Hints on installation 31
Troubleshooting 31
General 31
Tuner 32
Error Messages 32
Glossary 32
Specifications 33

Chapter 1
Controls and displays

Display unit



1 ⏻ STANDBY/ON
Press to switch the system on/into standby.

2 Front panel display
See below for details.

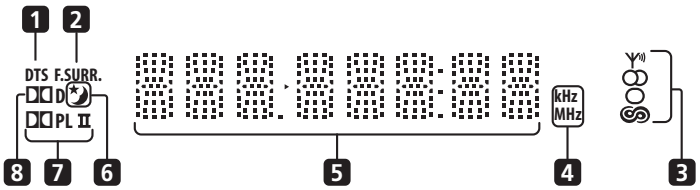
3 VOLUME buttons
Use to adjust the volume.

4 AUDIO INPUT (page 29)
Press repeatedly to select one of the external audio inputs (**DVD/DVR1**, **DVD/DVR2**, **DIGITAL** or **ANALOG**).

5 SURROUND
Use to select a Surround mode (page 22).

6 IR remote sensor (page 15)

Display



1 DTS
Lights during playback of a DTS source (page 22).

2 F.SURR.
Lights when the Front Surround listening mode is selected (page 23).

3 Tuner indicators
– Lights when a broadcast is being received.
– Lights when a stereo FM broadcast is being received in auto stereo mode.
– Lights when FM mono reception is selected.
– Lights when in one of the RDS display or search modes.

4 kHz / MHz
Indicates the frequency unit shown in the character display (**kHz** for AM, **MHz** for FM).

5 Character display

6
Lights when sleep timer is active (page 30).

7 PL II
Lights during Dolby Pro Logic II decoding (page 22).

8 D
Lights during playback of a Dolby Digital source (page 22).

English

Chapter 2
Getting started

System demo setting

Switches the automatic demo feature on or off (this starts when you plug in for the first time):

1 Switch the system into standby.

2 Press SHIFT+SYSTEM SETUP.

3 Hold SHIFT and use the ⬅/➡ buttons to select DEMO from the menu, then press SHIFT+ENTER.

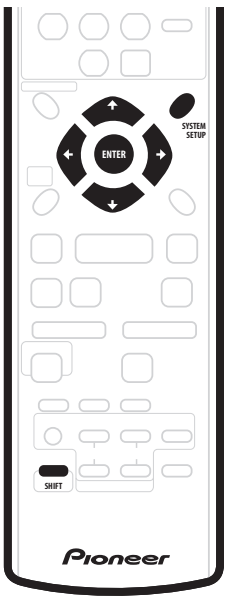
4 Hold SHIFT and use the ⬆/⬇ buttons to select a setting, then press SHIFT+ENTER.
Select from:

- **DEMO ON** – Switches the demo feature on.
- **DEMO OFF** – Switches the demo feature off.

Using the Room Setup

After you have set up your speakers to your liking (see *Home theater sound setup* on page 6), make sure you calibrate your system for surround sound. This is a quick and easy way to get good surround sound for your room.

For a more detailed surround sound setup, see *Using the System Setup menu* on page 27.



1 If the system isn't already on, press ⏻ RECEIVER to switch on.

2 Press SHIFT+SYSTEM SETUP.

3 Hold SHIFT and use the ⬅/➡ buttons to select ROOM SET from the menu, then press SHIFT+ENTER.

4 Hold SHIFT and use the ⬆/⬇ buttons to select a room size setting, then press SHIFT+ENTER.
Select from:

- **ROOM S** – Smaller than average room (approx. 3.5 x 4.5m)
- **ROOM M** – Average room (approx. 5.5 x 6.0m)
- **ROOM L** – Larger than average room (approx. 7.5 x 9.0m)

5 Hold SHIFT and use the ⬆/⬇ buttons to select a seating position setting, then press SHIFT+ENTER.
Select from:

- **SEAT FWD** – If you are nearer to the front speakers than the surround speakers
- **SEAT MID** – If you are equal distance from the front and surround speakers
- **SEATBACK** – If you are nearer to the surround speakers than the front speakers

Chapter 3
Listening to your system

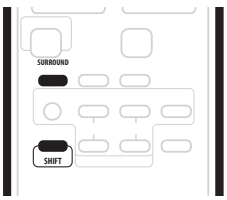
About the listening modes

As explained in *Home theater sound setup* on page 6, there are two basic surround speaker setup options available. You can select any of the listening modes regardless of speaker placement, but you will get the best surround effect by using the listening modes in conjunction with your speaker setup:

- **Standard surround 5-spot setup** – See *Listening in surround sound* below and *Using Advanced Surround* on page 23 with this setup.
- **Front surround 3-spot setup** – See *Using Front Surround* on page 23 for the options suitable for this speaker setup.

Auto listening mode

The Auto listening mode is the simplest way to listen to any source as it was mastered: the output from the speakers mirrors the channels in the source material.



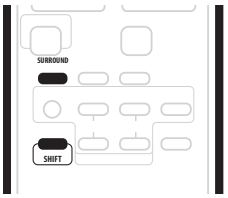
- **Press SHIFT+SURROUND to select the AUTO listening mode.**

If the source is Dolby Digital or DTS, the front panel **D** or **DTS** indicator lights.

- You can also use the **SURROUND** button on the display unit to change the listening mode.

Listening in surround sound

You can listen to stereo or multichannel sources in surround sound. Surround sound is generated from stereo sources using one of the Dolby Pro Logic decoding modes.



- **Press SHIFT+SURROUND repeatedly to select a listening mode.**
  - You can also use the **SURROUND** button on the display unit to change the listening mode.

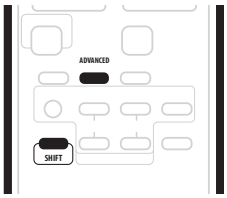
The choices that appear in the display will vary according to the type of source that's playing.

If the source is Dolby Digital or DTS, the front panel **D** or **DTS** indicator lights.

- **AUTO** – Auto listening mode (see above)
- **PRO LOGIC** (Dolby Pro Logic) – 4.1 channel surround sound for use with any two-channel source
- **MOVIE** (Dolby Pro Logic II Movie) – 5.1 channel surround sound, especially suited to movie sources, for use with any two-channel source
- **MUSIC** (Dolby Pro Logic II Music) – 5.1 channel surround sound, especially suited to music sources, for use with any two-channel source
- **STEREO** – See *Listening in stereo* on page 23

Using Front Surround

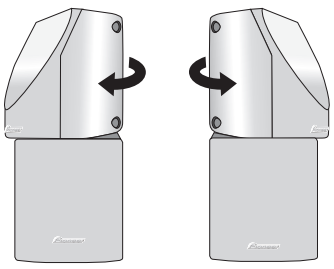
The Front Surround modes are effective when you are using the Front surround 3-spot speaker setup as described on page 7. The surround speakers should be placed on top of the front speakers and oriented either towards the walls, or straight ahead, depending on which mode you are using (see below).



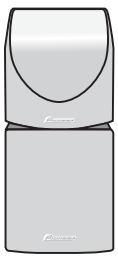
- **Press SHIFT+ADVANCED to select a Front Surround mode.**

Press repeatedly to select **FRTMOVIE**, **FRTMUSIC** or **EXTPOWER**.

- If you have selected **FRTMOVIE** (Front Movie) or **FRTMUSIC** (Front Music), turn each surround speaker so that the ▼ arrow at the base is lined up with the ▲ **FRONT SURROUND** arrow on the front speaker. With **EXTPOWER** (Extra Power), the surround speakers should point in the same direction as the front speakers. (as shown below)



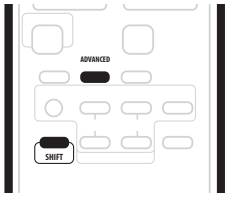
FRTMOVIE / **FRTMUSIC**



EXTPOWER

Using Advanced Surround

The Advanced Surround effects can be used with any multichannel or stereo source for a variety of additional surround sound effects.



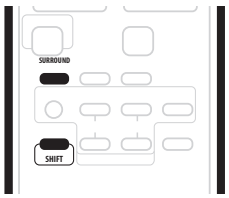
- **Press SHIFT+ADVANCED to select an Advanced Surround mode.**

Press repeatedly to select:

- **ADVMOVIE** – Suitable for movies
- **ADVMUSIC** – Suitable for music
- **EXPANDED** – Wide sound field
- **TV SURR.** – Surround sound for mono or stereo TV broadcasts
- **SPORTS** – Suitable for sports programming
- **GAME** – Suitable for TV game units
- **5 STEREO** – Powerful surround sound for stereo music sources

Listening in stereo

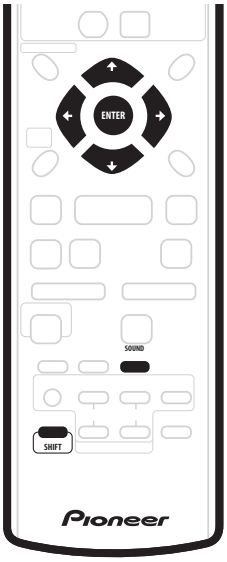
You can listen to any source—stereo or multichannel—in stereo. When playing a multichannel source, all channels are downmixed to the front left/right speakers and the subwoofer.



- **Press SHIFT+SURROUND repeatedly until STEREO shows in the display.**
  - You can also use the **SURROUND** button on the display unit to change the listening mode.

Enhancing dialogue

The Dialogue Enhancement feature is designed to make the dialogue stand out from other background sounds in a TV or movie soundtrack.



1 Press SHIFT+SOUND.

2 Hold SHIFT and use the ⬅/➡ buttons to select DIALOGUE then press SHIFT+ENTER.

3 Hold SHIFT and use the ⬆/⬇ buttons to select the amount dialogue enhancement then press SHIFT+ENTER to confirm.
Select between **OFF**, **MID** or **MAX**.

Adjusting the bass and treble

Use the bass and treble controls to adjust the overall tone.

1 Press SHIFT+SOUND.

2 Hold SHIFT and use the ⬅/➡ buttons to select BASS or TREBLE then press SHIFT+ENTER.

3 Hold SHIFT and use the ⬆/⬇ buttons to adjust the sound then press SHIFT+ENTER to confirm.

Boosting the bass level

There are two bass modes you can use to enhance the bass in a source.

1 Press SHIFT+SOUND.

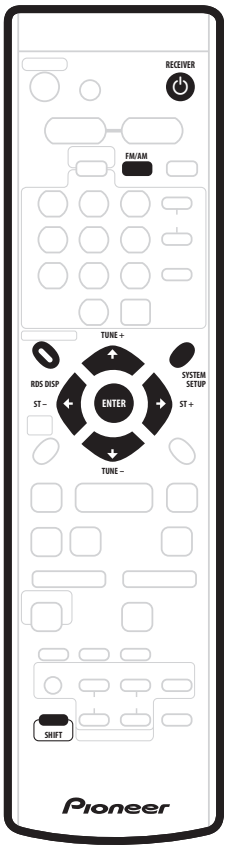
2 Hold SHIFT and use the ⬅/➡ buttons to select BASSMODE then press SHIFT+ENTER.

3 Hold SHIFT and use the ⬆/⬇ buttons to adjust the sound then press SHIFT+ENTER to confirm.
Select between **OFF**, **MUSIC** or **CINEMA**.

Chapter 4
Listening to the radio

Listening to the radio

The tuner can receive both FM and AM broadcasts, and lets you memorize your favorite stations so you don't have to manually tune in every time you want to listen.



1 Press FM/AM to switch to the tuner, then press repeatedly to select the FM or AM band.
The display shows the band and frequency.

2 Tune to a frequency.
There are three tuning modes—manual, auto, and high-speed:

- **Manual tuning**: Press **SHIFT+TUNE +/–** repeatedly to change the displayed frequency.
- **Auto tuning**: Press and hold **SHIFT+TUNE +/–** until the frequency display starts to move, then release. The tuner will stop on the next station it finds. Repeat to keep searching.
- **High-speed tuning**: Press and hold **SHIFT+TUNE +/–** until the frequency display starts to move rapidly. Keep the button held down until you reach the frequency you want. If necessary, fine tune the frequency using the manual tuning method.

Improving poor FM reception

If you're listening to an FM station in stereo but the reception is weak, you can improve the sound quality by switching to mono.

1 Tune to an FM radio station then press SHIFT+SYSTEM SETUP.

2 Hold SHIFT and use the ⬅/➡ buttons to choose FM MODE then press SHIFT+ENTER.

3 Hold SHIFT and use the ⬆/⬇ buttons to select FM MONO then press SHIFT+ENTER.

The mono indicator (○) lights when the tuner is in mono reception mode.

Select **FM AUTO** above to switch back to auto-stereo mode (the stereo indicator (○○) lights when receiving a stereo broadcast).

Improving poor AM sound

The simplest way to improve the sound quality of AM radio is to make sure that the TV in the room is switched off. Also try changing the position and direction of the AM loop antenna.

Changing the noise cut mode

If you find that the sound quality is bad even after trying the above, you may be able to improve it using a different noise cut mode. Just choose the one that sounds best.

1 Tune to an AM radio station then press SHIFT+SYSTEM SETUP.

2 Hold SHIFT and use the ⬅/➡ buttons to choose NOISECUT then press SHIFT+ENTER.

3 Hold SHIFT and use the ⬆/⬇ buttons to select a Noise cut mode (1, 2 or 3) then press SHIFT+ENTER.

Memorizing stations

You can save up to 30 station presets so that you always have easy access to your favorite stations without having to tune in manually each time.

1 Tune to an AM or FM radio station.
For the FM band, select mono or auto-stereo reception as necessary. This setting is saved along with the preset.

2 Press SHIFT+SYSTEM SETUP.

3 Hold SHIFT and use the ⬅/➡ buttons to choose ST.MEM. then press SHIFT+ENTER.

4 Hold SHIFT and use the ⬆/⬇ buttons to select the station preset you want then press SHIFT+ENTER.

Listening to station presets

1 Make sure the tuner function is selected.

2 Use the SHIFT + ⬅/➡ buttons to select a station preset.

- You can also use the number buttons (while holding **SHIFT**) to do this.

An introduction to RDS

Radio Data System (RDS) is a system used by most FM radio stations to provide listeners with various kinds of information—the name of the station and the kind of show they're broadcasting, for example.

One feature of RDS is that you can search by type of program. For example, you can search for a station that's broadcasting a show with the program type, **JAZZ**.

You can search the following program types:[1]

NEWS – News
AFFAIRS – Current Affairs
INFO – General Information
SPORT – Sport
EDUCATE – Educational
DRAMA – Radio plays, etc.
CULTURE – National or regional culture, theater, etc.
SCIENCE – Science and technology
VARIED – Usually talk-based material, such as quiz shows or interviews.
POP M – Pop music
ROCK M – Rock music
EASY M – Easy listening
LIGHT M – 'Light' classical music
CLASSICS – 'Serious' classical music
OTHER M – Music not fitting above categories
WEATHER – Weather reports
FINANCE – Stock market reports, commerce, trading, etc.
CHILDREN – Programs for children
SOCIAL – Social affairs
RELIGION – Programs concerning religion
PHONE IN – Public expressing their views by phone
TRAVEL – Holiday-type travel rather than traffic announcements
LEISURE – Leisure interests and hobbies
JAZZ – Jazz
COUNTRY – Country music
NATION M – Popular music in a language other than English
OLDIES – Popular music from the '50s and '60s
FOLK M – Folk music
DOCUMENT – Documentary

Displaying RDS information

Use the **SHIFT+RDS DISP** button to display the different types of RDS information available.[2]

- **Press SHIFT+RDS DISP for RDS information.**

Each press changes the display as follows:

- Radio Text (**RT**) – Messages sent by the radio station. For example, a talk radio station may provide a phone number as RT.
- Program Service Name (**PS**) – The name of the radio station.
- Program Type (**PTY**) – This indicates the kind of program currently being broadcast.
- **SEARCH** – PTY search (see below)
- Current tuner frequency

Searching for RDS programs

You can search for a program type listed above.

1 Press the FM/AM button for the FM band.[3]

2 Press SHIFT+RDS DISP repeatedly until SEARCH appears in the display.

3 Hold SHIFT and use the ⬅/➡ buttons to select the program type you want to hear.

4 Press SHIFT+ENTER to start the search.

The system searches the station presets for a match. If it finds one, searching stops for 5 sec.

5 If you want to keep listening to the station, press SHIFT+ENTER within the 5 seconds.

If you don't press **SHIFT+ENTER**, searching resumes.

Note

1 In addition, there are three other program types, **TEST**, **ALARM**, and **NO TYPE**. **ALARM** and **TEST** are used for emergency announcements. You can't search for these, but the tuner will switch automatically to this RDS broadcast signal. **NO TYPE** appears when a program type cannot be found.

2 • If any noise is picked up while displaying the RT scroll, some characters may be displayed incorrectly.
• If you see **NO DATA** in the RT display, it means no RT data is sent from the broadcast station. The display will automatically switch to the PS data display (if no PS data, the frequency is displayed).
• In the PTY display, **NO DATA** or **NO TYPE** may be shown. In this case, the PS display is shown after a few seconds.

3 RDS is only possible in the FM band.

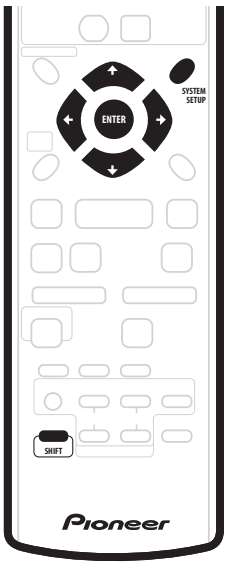
English

Chapter 5
Surround sound settings

Using the System Setup menu

From the System Setup menu you can access all the surround sound settings of the system[1], including channel levels, speaker distances, dynamic range adjustment and dual mono audio playback.

Use the following buttons to use the System Setup menu.



Channel level setting

The Room Setup feature (see page 21) is designed to give you a basic surround sound setup very quickly by setting the channel levels (and speaker distances) for you according to your room size and seating position. If you need to adjust the relative channel levels in more detail, you can do it here.

This method of setting the channel levels allows you to listen to a source and adjust the levels of each playback channel. Note that the channel level settings for stereo playback are independent of the settings for surround sound playback.

A further method of setting the channel levels is to use the test tone method. See *Adjusting the channel levels using the test tone* on page 28 for more on this.

1 Select stereo or multichannel playback for a source.

2 Press SHIFT+SYSTEM SETUP.

3 Hold SHIFT and use the ⬅/➡ buttons to select CH LEVEL, then press SHIFT+ENTER.

4 Use SHIFT + ⬅/➡ to select a channel; SHIFT + ⬆/⬇ to adjust the level of that channel.
- You can adjust the level of each channel by ± 10 dB.

5 Press SHIFT+ENTER when you're finished.
- If you use the Room Setup feature again, it will overwrite the settings you have made here.

Speaker distance setting

The Room Setup feature (see page 21) is designed to give you a basic surround sound setup very quickly by setting the speaker distances (and channel levels) for you according to your room size and seating position. If you need to adjust the speaker distance settings in more detail, you can do it here.

Set the distance of each speaker from your normal listening position.

1 Press SHIFT+SYSTEM SETUP.

2 Hold SHIFT and use the ⬅/➡ buttons to select DISTANCE, then press SHIFT+ENTER.

3 Use SHIFT + ⬅/➡ to select a speaker; SHIFT + ⬆/⬇ to adjust the distance.

Adjust the following speakers:
- **L** – Front left speaker
- **C** – Center speaker
- **R** – Front right speaker
- **SR** – Surround right speaker
- **SL** – Surround left speaker
- **SW** – Subwoofer

Each speaker can be adjusted between **0.3 m** ~ **9.0 m**.

4 Press SHIFT+ENTER when you're finished.
- If you use the Room Setup feature again, it will overwrite the settings you have made here.

Note

1 There are other settings you can adjust from the System Setup menu; these are explained in *Listening to the radio* on page 25 and *Additional information* on page 30.

Dynamic Range Control[1]

When watching Dolby Digital or DTS material at low volume, low level sounds—including some of the dialog—can be difficult to hear properly. Using one of the Dynamic Range Control (DRC) settings can help by bringing up the low level sounds, while controlling high level peaks.

Dynamic Range Control works only with Dolby Digital soundtracks and some DTS soundtracks.

1 Press SHIFT+SYSTEM SETUP.

2 Hold SHIFT and use the ⬅/➡ buttons to select DRC.

3 Use SHIFT + ⬆/⬇ to select a setting.
Select one of the following:

- **DRC OFF** *(default)* – No dynamic range adjustment (use when listening at higher volume)
- **DRC MID** – Mid setting
- **DRC HIGH** – Dynamic range is reduced (loud sounds are reduced in volume while quieter sounds are increased)

4 Press SHIFT+ENTER to exit.

Dual mono setting[2]

Specifies how dual mono encoded Dolby Digital or DTS soundtracks should be played. You can also use this setting to switch the audio channel on DVD-RW discs recorded with bilingual audio.

1 Press SHIFT+SYSTEM SETUP.

2 Hold SHIFT and use the ⬅/➡ buttons to select DUALMONO.

3 Use SHIFT + ⬆/⬇ to select a setting.
Select one of the following:

- **CH1 MONO** *(default)* – Only channel 1 is played
- **CH2 MONO** – Only channel 2 is played
- **CH1/CH2** – Both channels are played through the front speakers

4 Press SHIFT+ENTER to exit.

Adjusting the channel levels using the test tone

If you prefer, you can set the channel levels using a test tone as a reference, rather than playing a source (see *Channel level setting* on page 27). A test tone is played through each speaker in turn, allowing you to adjust the level as it plays.

Note that the channel level settings for stereo sources are independent of the settings for surround sound sources.

1 Press SHIFT+SURROUND to select the Auto listening mode.

- If you want to set the channel levels for stereo (two channel) playback, select the **STEREO** listening mode.

2 Press SHIFT+TEST TONE.
The test tone is output from each speaker in turn.

3 While a test tone is playing, hold SHIFT and use the ⬆/⬇ buttons to adjust that channel level.
The aim is to adjust the levels so that you hear the test tone at the same volume from each speaker. You can adjust the level of each channel by ± 10 dB.

- You can adjust the overall volume of test tone output using the **VOLUME** +/– buttons (this does not affect the channel level settings).
- Because of the ultra low frequencies the subwoofer produces, it may sound quieter than it really is. We suggest adjusting the subwoofer level using the method described in *Channel level setting* on page 27.

4 When you're done, press SHIFT+ENTER to exit test tone setup.

- If you use the Room Setup feature again, it will overwrite the settings you have made here.

Note

1 A similar adjustment feature is available on the DVD recorder—see *Audio Adjust setting* on page 84.
2 A similar adjustment feature is available on the DVD recorder—see *Switching audio channels* on page 62.

English

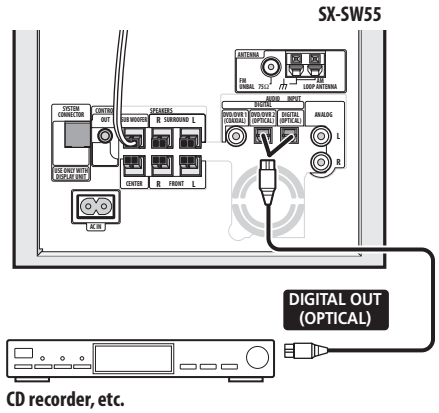
Chapter 6
Other connections

Important

- When connecting this system or changing connections, be sure to switch power off and disconnect the power cord from the wall socket. After completing all connections, connect the power cord to the wall socket.

Connecting auxiliary components

This system has optical-type digital inputs. Use these to connect external components, such as your MD or CD recorder.



- **Connect the DVD/DVR2 (OPTICAL) or DIGITAL (OPTICAL) jack on the rear panel to the optical output of an external playback component.**

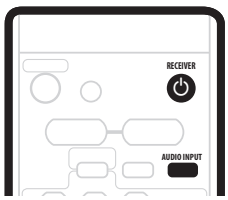
These include digital components such as an MD player, digital satellite, or a game system.

Connecting an analog audio component

You can use the **ANALOG** input jacks to connect an analog audio component, such as a tape player. See *Using this system for TV audio* on page 12 for connection details (this explains connecting the audio output from your TV, but any analog audio component can be connected).

Listening to an external audio source

You can connect both analog and digital external audio sources to this system. Digital audio sources include digital satellite receivers, CD recorders, etc. Analog sources include your TV. See also *Connecting auxiliary components* above.



1 If the system isn't already on, press ⏻ RECEIVER to switch on.

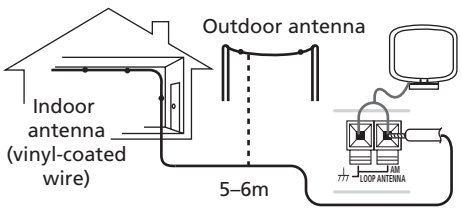
Also make sure that the external source (TV, satellite receiver, etc.) is switched on.

2 Use the AUDIO INPUT button to select an audio input source.

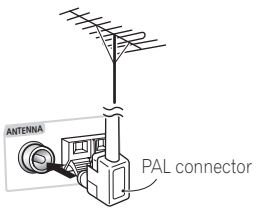
3 If necessary, start playback of the external source.

Connecting external antennas

For an external AM antenna, use 5–6 meters of vinyl-insulated wire and set up either indoors or outdoors. Leave the loop antenna connected.



For an external FM antenna, Use a PAL connector to hook up an external FM antenna.



Chapter 7
Additional information

Setting the sleep timer

The sleep timer switches off the receiver subwoofer after a specified time so you can fall asleep without worrying about it.[1]

1 Press SHIFT+SYSTEM SETUP.

2 Hold SHIFT and use the ⬅/➡ buttons to select SLEEP then press SHIFT+ENTER.

3 Hold SHIFT and use the ⬆/⬇ buttons to select an option then press SHIFT+ENTER.
Choose between the following options:

- **SLP ON** – Switches off after about an hour
- **SLP OFF** – Cancels the sleep timer

After selecting **SLP ON**, you can select **SLEEP** again to check how much time is left. Each line indicates approximately 12 minutes (remaining):

Dimming the display

You can choose to dim the display if you find it too bright.

1 Press SHIFT+SYSTEM SETUP.

2 Hold SHIFT and use the ⬅/➡ buttons to select DIMMER then press SHIFT+ENTER.

3 Hold SHIFT and use the ⬆/⬇ buttons to select LIGHT or DARK then press SHIFT+ENTER.

DTS CD setting

If you play a DTS-encoded CD, you will need to change this setting to hear the decoded signal.

1 Switch the system into standby.

2 Press SHIFT+SYSTEM SETUP.

3 Hold SHIFT and use the ⬅/➡ buttons to select CD TYPE from the menu, then press SHIFT+ENTER.

4 Hold SHIFT and use the ⬆/⬇ buttons to select a setting, then press SHIFT+ENTER.
Select from:

- **NORMAL** – Use for playback of regular audio CDs. Some DTS-encoded CDs will output noise when played.
- **DTS-CD** – Use for playback of DTS-encoded CDs, but note that there may be a slight loss of regular audio CD playback quality.

Resetting the system

Use this procedure to reset all system settings to the factory default.

1 Switch the system on.

2 Press SURROUND while holding down the front panel ⏻ STANDBY/ON button.
The next time you switch on, all the system settings should be reset.

Note

1 The display dims when the sleep timer is set. The DVD recorder does not automatically switch off with the sleep timer.

Installation and maintenance

Hints on installation

We want you to enjoy using this system for years to come, so please bear in mind the following points when choosing a location:

Do...

✓ Use in a well-ventilated room.

✓ Place on a solid, flat, level surface, such as a table, shelf or stereo rack.

Don't...

✗ Use in a place exposed to high temperatures or humidity, including near radiators and other heat-generating appliances.

✗ Place on a window sill or other place where the system will be exposed to direct sunlight.

✗ Use in an excessively dusty or damp environment.

✗ Place directly on top of an amplifier, or other component in your stereo system that becomes hot in use.

✗ Use near a television or monitor as you may experience interference—especially if the television uses an indoor antenna.

✗ Use in a kitchen or other room where the system may be exposed to smoke or steam.

✗ Use on a thick rug or carpet, or cover with cloth—this may prevent proper cooling of the system unit.

✗ Place on an unstable surface, or one that is not large enough to support all four of the system unit's feet.

Troubleshooting

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used. If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest Pioneer authorized service center or your dealer to carry out repair work.

- If the system does not operate normally due to external effects such as static electricity disconnect the plug from the outlet and insert again to return to normal operating conditions.
- If there is no sound or no multichannel sound from the DVR-230-AV DVD recorder, try setting the recorder's audio-related settings back to their defaults—see *The Initial Setup menu* on page 76.

General

Problem	Remedy
The power does not turn on, or switches off suddenly (an error message may be displayed at startup).	• Leave the unit plugged in, wait for one minute, then switch back on. • Make sure there are no loose strands of wire touching the unit. This could cause the system to shut off automatically. • Check that the speakers are connected correctly. • Make sure the voltage of the mains power source is correct for the model. • Try reducing the volume level. • If the problem persists, take it to your nearest Pioneer authorized service center or your dealer for servicing.
No sound is output when a function is selected.	• If you're playing from the DVD recorder, make sure that the digital coaxial cable is connected properly. Also make sure that the DVD recorder's Digital Out and DTS Out settings are set to **On**, and that the MPEG Out setting is set to **MPEG → PCM**. • If you're using the line input, make sure the component is connected correctly (see *Connecting auxiliary components* on page 29). • Turn up the volume. • Press **MUTE** on the remote control to turn muting off.
No sound from surround or center speakers.	• Refer to *Channel level setting* on page 27 to check the speaker levels. • Check that you haven't selected the **AUTO** or **STEREO** mode (see *Listening in surround sound* on page 22). • Connect the speakers properly (refer to Connecting up). • If you're playing from the DVD recorder, check that the Dolby Digital Out setting is set to **Dolby Digital**. • If the source is 96 kHz, this will be played in stereo. If you want to play it in surround sound, set the DVD recorder's 96 kHz PCM Out setting to **96 kHz → 48 kHz**.

Problem	Remedy
Can't operate using the remote control.	• Replace the batteries (*Putting the batteries in the remote control* on page 15). • Operate within 7 m, 30° of the remote sensor (*Using the remote control* on page 15). • Remove any obstacles or operate from another position. • Avoid exposing the remote sensor on the front panel to direct light. • For operating the DVD recorder, make sure that the control cable and at least one set of audio cables are connected. (page 9)

Tuner

Problem	Remedy
Considerable noise in radio broadcasts.	• Connect the AM antenna (refer to the Connecting up) and adjust the direction and position for best reception. You may also connect an additional internal or external AM antenna (refer to *Connecting external antennas* on page 29). • Fully extend the FM wire antenna, position for best reception, and secure to a wall. You may also connect an outdoor FM antenna (see *Connecting external antennas* on page 29). • Turn off other equipment that may be causing the noise or move it further away.
Auto tuning does not pick up some stations.	• The radio signal is weak. Auto tuning will only detect radio stations with a good signal. For more sensitive tuning, connect an outdoor antenna.

Error Messages

Message	Description
MUTING	• An operation is prohibited because the sound is muted (press **MUTE**).
EEP ERROR	• Contact your Pioneer authorized service center or your dealer for servicing.
EXIT	• Appears when a menu is automatically exited after a set period of inactivity.
96K	• An operation is prohibited because the source is 96 kHz digital.
NO SPTYP	• Try switching the unit off then on again. If the error still appears, please contact a Pioneer authorized service center or your dealer.

Glossary

Dolby Digital	A multi-channel audio encoding system developed by Dolby Laboratories that enables far more audio to be stored on a disc than PCM encoding.
Dolby Pro Logic II	A matrix decoding technology developed by Dolby Laboratories that expands any two-channel source audio, such as CDs and TV broadcasts, to a five-channel playback (left/center/right/left surround/right surround), resulting in a surround experience.
DTS	A multi-channel audio encoding system developed by Digital Theater Systems that enables far more audio to be stored on a disc than PCM encoding.

Manufactured under license from Dolby Laboratories."Dolby", "Pro Logic" and the double-D symbol are registered trademarks of Dolby Laboratories.

"DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.

Specifications

- **Amplifier section**

RMS Power Output:
Front, Center, Surround . . . . . 110 W per channel (1 kHz, 10 % T.H.D., 3 Ω)
Subwoofer . . . . . 70 W (200 Hz, 10 % T.H.D., 3 Ω)
Front, Center, Surround . . . . . 60 W per channel (1 kHz, 10 % T.H.D., 6 Ω)
Subwoofer . . . . . 60 W (200 Hz, 10 % T.H.D., 6 Ω)

- **FM tuner section**

Frequency range . . . . . 87.5 MHz to 108 MHz
Antenna . . . . . 75 Ω, unbalanced

- **AM tuner section**

Frequency range . . . . . 531 kHz to 1,602 kHz
Antenna . . . . . Loop antenna

- **Subwoofer section**

Enclosure . . . . . Bass-reflex floor type
System . . . . . 16 cm 1-way system
Speaker . . . . . 16 cm cone type
Nominal impedance . . . . . 6 Ω
Frequency range . . . . . 25 Hz to 1.0 kHz
Maximum Input Power . . . . . 60 W

- **Miscellaneous**

Power requirements . . . . . AC 220-240 V, 50/60 Hz
Power consumption . . . . . 51 W
Power consumption in standby . . . . . 0.4 W
Dimensions . . . . . 200 (W) x 375 (H) x 437 (D) mm
Weight . . . . . 9.0 kg

- **Accessories**

Remote control 1
Display unit 1
AA/R6 dry cell batteries 2
Coaxial cable 1
Control cable 1
Display cable 1
AM loop antenna 1
FM wire antenna 1
Power cord 1
Warranty card 1
These operating instructions

S-ST550 Speaker system

(Front speakers x2, surround speakers x2, center speaker x1)

- **Front speakers**

Enclosure . . . . . Closed-box bookshelf type (magnetically shielded)
System . . . . . 7.7 cm 1-way system
Speakers . . . . . 7.7 cm cone type
Nominal impedance . . . . . 6 Ω
Frequency range . . . . . 90 Hz to 20 kHz
Maximum input power . . . . . 100 W
Dimensions . . . . . 105 (W) x 115 (H) x 114 (D) mm
Weight . . . . . 0.6 kg

- **Center speaker**

Enclosure . . . . . Closed-box bookshelf type (magnetically shielded)
System . . . . . 7.7 cm 1-way system
Speakers . . . . . 7.7 cm cone type
Nominal impedance . . . . . 6 Ω
Frequency range . . . . . 90 Hz to 20 kHz
Maximum input power . . . . . 100 W
Dimensions . . . . . 115 (W) x 105 (H) x 114 (D) mm
Weight . . . . . 0.6 kg

- **Surround speakers**

Enclosure . . . . . Closed-box bookshelf type (magnetically shielded)
System . . . . . 7.7 cm 1-way system
Speakers . . . . . 7.7 cm cone type
Nominal impedance . . . . . 6 Ω
Frequency range . . . . . 100 Hz to 20 kHz
Maximum input power . . . . . 100 W
Dimensions . . . . . 105 (W) x 118 (H) x 114 (D) mm
Weight . . . . . 0.63 kg

- **Accessories**

Non-skid pads (small) 12
Non-skid pads (large) 4
Mounting brackets 4
Screws (for mounting brackets) 4

Note

- Specifications and design subject to possible modification without notice, due to improvements.

DVD RECORDER

DVR-230-AV

Contents

01 Before you start
Features 36
Disc / content format playback compatibility 37

02 Connecting up
Rear panel connections 39
Front panel connections 39
Extra features for use with compatible TVs 40
Easy connections 41
Using other types of audio/video output 42
Connecting to a cable box or satellite receiver 43
Connecting an external decoder box (1) 44
Connecting an external decoder box (2) 45
Connecting other AV sources 46
Plugging in 46

03 Controls and displays
Front panel 47
Display 47

04 Getting started
Switching on and setting up 48
Making your first recording 50
Using the built-in TV tuner 51
Basic playback 52
Displaying disc information on-screen 54

05 Playback
Introduction 56
Using the Disc Navigator to browse the contents of a disc 56
Navigating discs 57
Scanning discs 58
Playing in slow motion 58
Frame advance/frame reverse 59
The Play Mode menu 59
Displaying and switching subtitles 61
Switching DVD soundtracks 61
Switching audio channels 62
Switching camera angles 62

06 Recording
About DVD recording 63
Recording time and picture quality 63
Restrictions on video recording 64
Setting the picture quality/recording time 64
Basic recording from the TV 65
Setting a timer recording 66
Timer recording FAQ 69
Recording from an external component 69
Playing your recordings on other DVD players 70
Initializing a DVD-RW disc 71

07 Editing
Editing Titles (Title Edit) 72
Editing chapters (Chapter Edit) 74

08 The Initial Setup menu
Using the Initial Setup menu 76
Basic settings 76
Disc settings 81
Video settings 82
Audio settings 84
Recording settings 85
Playback settings 86

09 Additional information
Resetting the recorder 90
Setting up the remote to control your TV 90
TV Preset code list 91
Screen sizes and disc formats 92
Troubleshooting 93
Frequently asked questions 95
Time Zone list 96
Language code list 97
Country/Area code list 97
On-screen displays and recorder displays 98
Handling discs 99
Storing discs 99
Damaged discs 99
Cleaning the pickup lens 99
Condensation 99
Hints on installation 100
Moving the recorder 100
Glossary 100
Specifications 102

Chapter 1
Before you start

Features

- **Progressive scan-compatible**

Compared to standard interlaced video, progressive scan effectively doubles the amount of video information fed to your TV or monitor. (Check your TV/monitor for compatibility with this feature.)

- **Cinema surround sound in your home**

Connect this recorder to a Dolby Digital and/or DTS-compatible AV amp/receiver to enjoy full surround sound effects from Dolby Digital and DTS DVD discs.

- **Program up to 32 timer recordings**

You can program the recorder to record up to 32 programs, up to a month in advance, using the VIDEO Plus+® system[*1] for easy programming if you want. As well as single programs, you can specify daily or weekly recordings, too.

*[*1] VIDEO Plus+ and PlusCode are registered trademark of Gemstar Development Corporation.*

The VIDEO Plus+ system is manufactured under license from Gemstar Development Corporation.

- **One Touch Recording**

Use One Touch Recording to start recording immediately in 30 minute blocks. Each time you press the ● **REC** button, the recording time is extended by another 30 minutes.

- **Optimized recording**

Optimized recording adjusts the recording quality automatically if a timer recording will not fit onto a disc with the settings that you made. Note that the quality of recordings may be reduced if a longer recording time is used.

- **High quality 16-bit Linear PCM audio**

When recording using the high quality setting (**XP**), the audio is recorded in uncompressed 16-bit Linear PCM format. This delivers great sounding audio to accompany the high picture quality.

- **Find what you want to watch quickly and easily**

Unlike video tape that needs to be wound to the correct place, you can jump right to the part of a DVD disc that you want to watch. Search for a point on a disc by title, chapter or time.

- **Play Video mode recordings on a regular DVD player** Video mode

Discs recorded using the Video mode can be played back on regular DVD players, including computer DVD drives compatible with DVD-Video playback[*2].

*[*2] 'DVD-Video format' recording: The use of the DVD-Video format for recording on DVD-R and DVD-RW discs is referred to as recording in 'Video mode' on Pioneer's DVD recorders. Supporting playback of DVD-R / DVD-RW discs is optional for manufacturers of DVD playback equipment, and there is DVD playback equipment that does not play DVD-R or DVD-RW discs recorded in the DVD-Video format.*
Note: 'Finalization' is required.

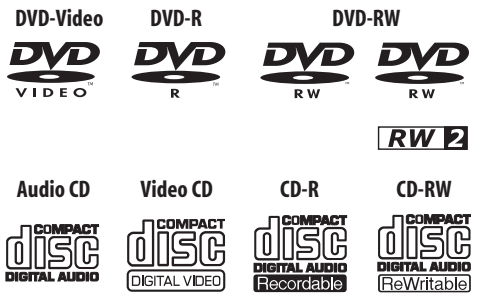
- **MP3 file playback**

This recorder can play MP3 audio files on CD-R, CD-RW or CD-ROM discs (see *Disc / content format playback compatibility* on page 37).

Disc / content format playback compatibility

General disc compatibility

This recorder is compatible with a wide range of disc types (media) and formats. Playable discs will generally feature one of the following logos on the disc and/or disc packaging. Note however that some disc types, such as recordable CD and DVD, may be in an unplayable format—see below for further compatibility information.



- *DVD is a trademark of DVD Format/Logo Licensing Corporation.*
- About DualDisc playback

  A DualDisc is a new two-sided disc, one side of which contains DVD content video, audio, etc. while the other side contains non-DVD content such as digital audio material.

  The non-DVD, audio side of the disc is not compliant with the CD Audio specification and therefore may not play.

  It is possible that when loading or ejecting a DualDisc, the opposite side to that being played will be scratched. Scratched discs may not be playable.

  The DVD side of a DualDisc plays in this product. DVD-Audio content will not play.

  For more detailed information on the DualDisc specification, please refer to the disc manufacturer or disc retailer.

DVD-R/RW compatibility

This recorder will play and record DVD-R/RW discs.

Compatible media:

- DVD-RW Ver. 1.1, Ver. 1.1 / 2x and Ver. 1.2 / 4x
- DVD-R Ver. 2.0, Ver. 2.0 / 4x / 8x and Ver. 2.1 / 16x

Recording formats:

- DVD-R: DVD-Video format (Video mode)
- DVD-RW: Video Recording (VR) format and DVD-Video format (Video mode)

This recorder cannot record onto DVD-R DL Ver. 3.0 (Dual Layer) discs. Dual Layer discs recorded and finalized on other recorders, however, can be played on this recorder.

Older models of DVD recorders and DVD writers may reject DVD-RW Ver. 1.2 / 4x discs. If you want to share DVD-RW discs between this recorder and an older recorder/writer, we recommend using Ver. 1.1 discs.

The following table shows older Pioneer DVD recorders' limited compatibility with DVD-RW Ver. 1.2 / 4x discs.

Model	Playable	Recordable
DVR-7000	Yes[1,2,3]	No
DVR-3100/ DVR-5100H	Yes[1]	No

[1] *Discs should be finalized in this recorder before playing. Unfinalized VR mode and Video mode discs may not play.*

[2] **Cannot read the CPRM information** *will show in the display when you load a disc. However, this will not affect playback.*

[3] *Copy-once protected disc titles will not play.*

CD-R/RW compatibility

This recorder cannot record CD-R or CD-RW discs.

- Compatible formats: CD-Audio, Video CD, ISO 9660 CD-ROM* containing MP3 files
  ** ISO 9660 Level 1 or 2 compliant. Joliet file system is compatible with this recorder.*
- Multi-session playback: No
- Unfinalized disc playback: No

Compressed audio compatibility

- Compatible media: CD-ROM, CD-R, CD-RW
- Compatible formats: MPEG-1 Audio Layer 3 (MP3)
- Sampling rates: 44.1 or 48kHz
- Bit-rates: 32 to 320Kbps (128Kbps or higher recommended)
- Variable bit-rate (VBR) MP3 playback: Yes
- File extension: .mp3 (this must be used for the recorder to recognize MP3 files – do not use for other file types)
- File structure: Up to 50 folders / 300 files (if these limits are exceeded, only files and folders up to these limits are playable)

PC-created disc compatibility

Discs recorded using a personal computer may not be playable in this unit due to the setting of the application software used to create the disc. In these particular instances, check with the software publisher for more detailed information.

Discs recorded in packet write mode (UDF format) are not compatible with this recorder.

Check the DVD-R/RW or CD-R/RW software disc boxes for additional compatibility information.

Frequently asked questions

- *What's the difference between DVD-R and DVD-RW?*

  The most important difference between DVD-R and DVD-RW is that DVD-R is a record-once medium, while DVD-RW is a re-recordable/erasable medium. You can re-record/erase a DVD-RW disc approximately 1,000 times.

  For more information, see *About DVD recording* on page 63.

- *What's VR mode?*

  VR (Video Recording) mode is a special mode designed for home DVD recording. It allows flexible editing of recorded material compared to 'Video mode'. On the other hand, Video mode discs are more compatible with other DVD players.

- *Can I play my recordable discs in a regular DVD player?*

  Generally, DVD-R discs and DVD-RW discs recorded in Video mode* are playable in a regular DVD player, but they must be 'finalized' first. This process fixes the contents of the disc to make them readable to other DVD players as DVD-Video discs.

  DVD-RW discs recorded in VR mode are playable in some players.

  RW COMPATIBLE This label indicates playback compatibility with DVD-RW discs recorded in VR mode (Video Recording format). However, for discs recorded with a record-only-once encrypted program, playback can only be achieved using a CPRM compatible device.

  Note that Pioneer cannot guarantee that discs recorded using this recorder will play on other players.

  ** 'DVD-Video format' recording: The use of the DVD-Video format for recording on DVD-R and DVD-RW discs is referred to as recording in 'Video mode' on Pioneer's DVD recorders. Supporting playback of DVD-R / DVD-RW discs is optional for manufacturers of DVD playback equipment, and there is DVD playback equipment that does not play DVD-R or DVD-RW discs recorded in the DVD-Video format.*
  Note: 'Finalization' is required.

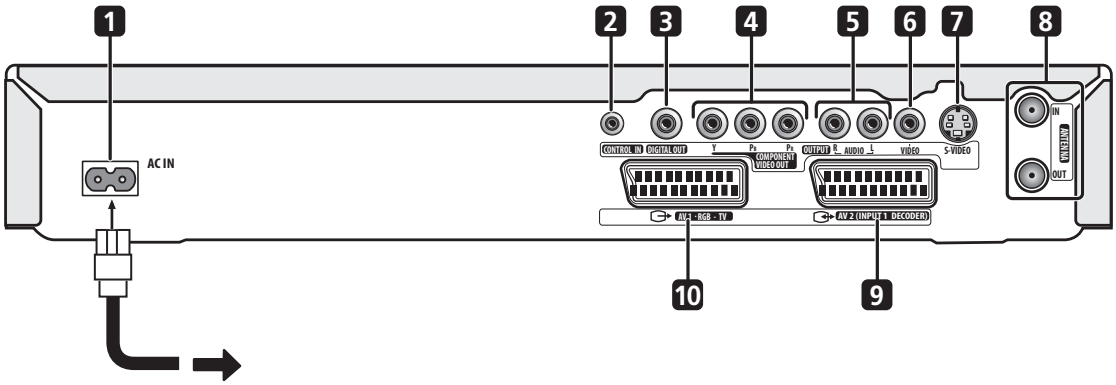
This recorder supports the recording of 'copy-once' broadcast programs using the CPRM copy protection system (see CPRM on page 64) on CPRM-compliant DVD-RW discs in VR mode. CPRM recordings can only be played on players that are specifically compatible with CPRM.

English

Chapter 2

Connecting up

Rear panel connections



1 AC IN
Connect to a power outlet using the supplied power cable only.

2 CONTROL IN
Connect to the **CONTROL OUT** terminal of the receiver subwoofer.

3 COAXIAL DIGITAL OUT
Connect to the **DVD/DVR1** coaxial jack on the receiver subwoofer.

4 COMPONENT VIDEO OUT
A high-quality video output for connecting to a TV or monitor with a component video input.

5 Analog audio output (AUDIO OUTPUT)
Stereo analog audio output for connection to your TV or AV receiver.

6 Composite video output (VIDEO OUTPUT)
Standard video output for connection to your TV or AV receiver.

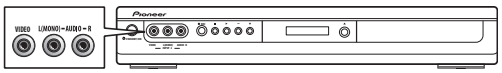
7 S-video output (S-VIDEO OUTPUT)
S-video video output for connection to your TV or AV receiver.

8 ANTENNA IN/OUT
Connect your TV antenna to the **ANTENNA IN** jack. The signal is passed through to the **ANTENNA OUT** jack for connection to your TV.

9 AV2 (INPUT 1/DECODER) AV connector
Audio/video input/output SCART-type AV connector for connecting to a VCR, or other equipment with a SCART connector. The input accepts video and S-video. See *AV2/L1 In* on page 82 for how to set this up.

10 AV1•RGB-TV AV connector
Audio/video output SCART-type AV connector for connecting to a TV or other equipment with a SCART connector. The video output is switchable between video, S-video and RGB. See *AV1 Out* on page 82 for how to set this up.

Front panel connections



On the left side of the front panel there is a second audio/video input, consisting of a standard (composite) video jack, and stereo analog audio jacks.

Extra features for use with compatible TVs

When this recorder is connected to a TV that features i/o Link.A, AV Link, T-V Link, EasyLink, MegaLogic, SMARTLINK, Q-Link, DATA LOGIC or NexTView Link using a fully-wired 21-pin SCART cable (not supplied), the following functions are available:

- Direct TV recording
- Channel preset download
- NexTView timer programming download
- TV auto power on
- System configuration

For further details and compatibility information, see also the manual that came with your TV.

Direct TV recording

Direct TV recording allows you to record the TV program that you're watching, without having to worry about whether this recorder is set to the same channel. See *Direct recording from TV* on page 66 for more on this feature.

Channel preset download

This feature allows you to set up the channel presets of this recorder very simply using the channel presets and preset names already in your TV. See *Switching on and setting up* on page 48 and *Auto CH Setup : Download from TV* on page 78 for more on this feature.

NexTView timer programming download

NexTView timer programming download allows you to program a timer recording directly from the electronic program guide displayed on your TV.

See the manual that came with your TV for more information on how to use this feature. Note that the **SP** and **LP** options displayed on your TV correspond to the **SP** and **LP** recording modes on this recorder.

TV auto power on

When you play a disc in this recorder, the TV automatically turns on and switches to the correct video input. See the manual that came with your TV for how to use this feature.

System configuration

Basic settings, including language, country and TV screen size (aspect ratio), can be downloaded from your TV to help set up this recorder for use.

Note

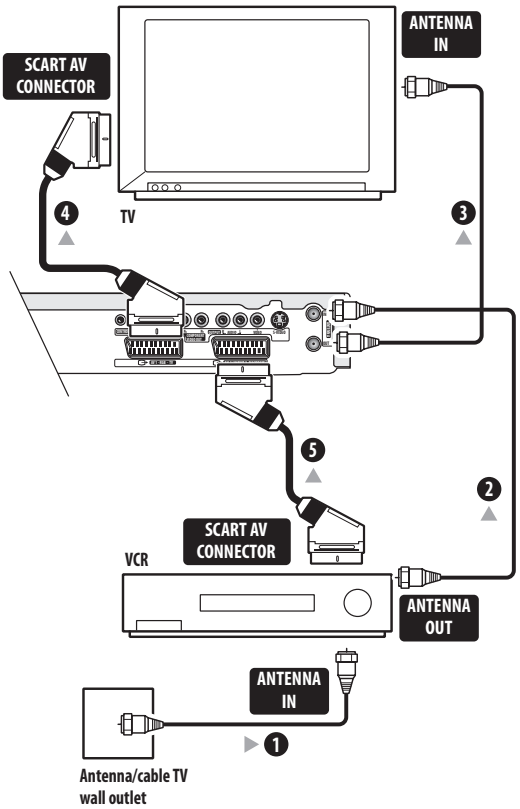
- For further details and compatibility information, see also the manual that came with your TV.

Easy connections

The setup described below is a basic setup that allows you to watch and record TV programs, and play discs. Other types of connections are explained starting on the following page.

Important

- These connections use SCART cables (not supplied). If your TV (or VCR) does not have a SCART connection, see the following page for connecting up using the supplied audio/video cable.
- The **AV1•RGB-TV** AV connector can output ordinary (composite) video, S-video or RGB, plus stereo analog audio. The **AV2 (INPUT 1/DECODER)** connector accepts ordinary video or S-video input, as well as stereo analog audio. See *AV1 Out* on page 82 and *AV2/L1 In* on page 82 for how to set them up.
- Before making or changing any rear panel connections, make sure that all components are switched off and unplugged from the wall outlet.



1 Connect the cable from the antenna/cable TV wall outlet to the antenna input on your VCR.

- If you are not connecting a VCR in the chain, connect it to the **ANTENNA IN** jack on this recorder and skip the next step.

2 Use an RF antenna cable (one is supplied) to connect the antenna output of your VCR to the ANTENNA IN of this recorder.

3 Use another RF antenna cable to connect the ANTENNA OUT of this recorder to the antenna input on your TV.

4 Use a SCART cable (not supplied) to connect the AV1•RGB-TV AV connector on this recorder to the SCART AV connector on your TV.

5 Use another SCART cable to connect the AV2 (INPUT 1/DECODER) AV connector to a SCART AV connector on your VCR.

Note

- See the following page if you want to use one of the other kinds of audio/video connection.

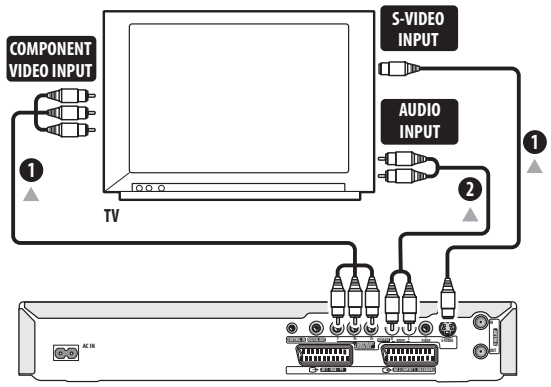
Tip

- This recorder has a 'through' function which allows you to record a TV program from the built-in TV tuner in this recorder while watching a video playing on your VCR. (To use this feature when the recorder is in standby, **Power Save** must be set to **Off**—see *Power Save* on page 81).

Using other types of audio/video output

If you can't use the SCART AV connector to connect your TV to this recorder, there are standard audio/video output jacks, as well as an S-video output.

Using the S-video or component video output



1 Connect the S-video or component video output to a similar input on your TV.

For an S-video connection, use an S-video cable (not supplied) to connect the **S-VIDEO OUTPUT** jack to an S-video input on your TV

For a component video connection, use a component video cable (not supplied) to connect the **COMPONENT VIDEO OUT** jacks to a component video input on your TV.

See also *Component Video* on page 83 for how to set up the component video output for use with a progressive scan-compatible TV.

2 Connect the AUDIO OUTPUT jacks to the corresponding audio inputs on your TV.

You can use the supplied audio/video cable, leaving the yellow video plug disconnected. Make sure you match up the left and right outputs with their corresponding inputs for correct stereo sound.

Connecting to a cable box or satellite receiver

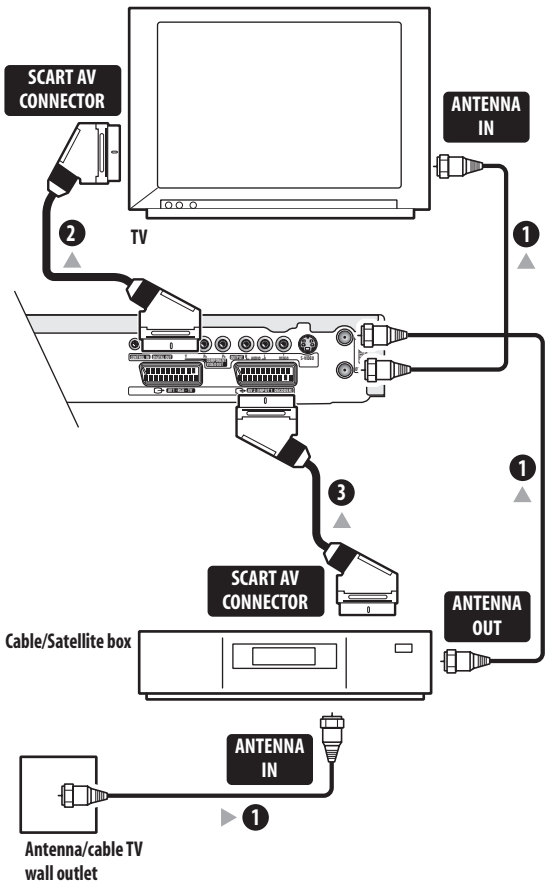
If you have a cable or satellite receiver with a built-in decoder, connect it to this recorder and your TV as shown on this page. If you are using a separate decoder box for your cable/satellite TV, set up following the instructions on the next page.

Using the setup on this page you can:

- Record any channel by selecting it on the cable box/satellite tuner.

Important

- Do not connect this recorder 'through' your VCR, satellite receiver or cable box. Always connect each component directly to your TV or AV amplifier/receiver.



1 Connect RF antenna cables as shown.
This enables you to watch and record TV channels.

2 Use a SCART cable (not supplied) to connect the AV1•RGB-TV AV connector to a SCART AV connector on your TV.
This enables you to watch discs.

3 Use another SCART cable to connect the AV2 (INPUT 1/DECODER) AV connector to a SCART AV connector on your satellite/cable box.
This enables you to record scrambled TV channels.

Note

- The diagram shows SCART video connections, but you can alternatively use any of the other audio/video connections.

Tip

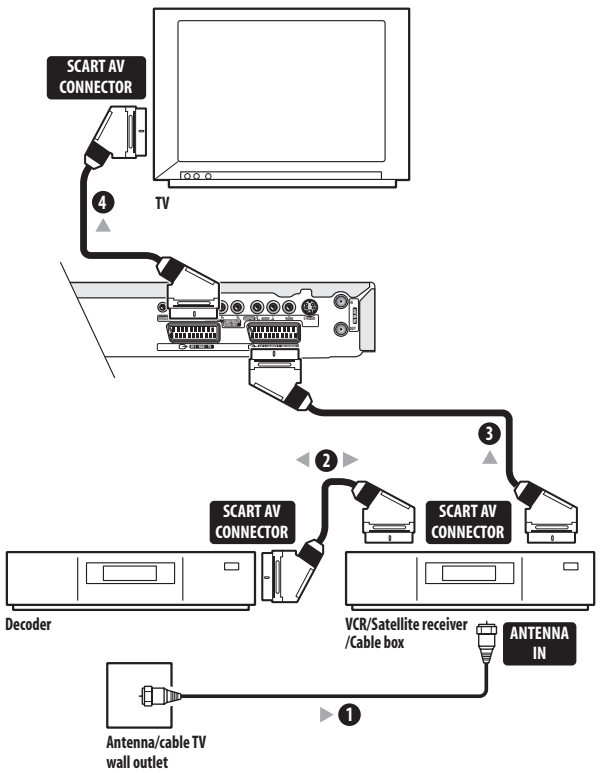
- This recorder has a 'through' function which allows you to record a TV program from the built-in TV tuner in this recorder while watching a video playing on your VCR. (To use this feature when the recorder is in standby, **Power Save** must be set to **Off**—see *Power Save* on page 81).

Connecting an external decoder box (1)

If you have an external, dedicated decoder box for your satellite or cable TV system, use the setup described on this page.

Important

- Do not connect your decoder box directly to this recorder.
- Information from the decoder (for example, relating to pay TV services), is only viewable when this recorder is off (in standby).
- For timer recording to work properly on this recorder, the VCR/satellite receiver/cable box must also be switched on during recording.
- It is not possible to watch one TV program and record another using this setup.



1 Connect the cable from the antenna/cable TV wall outlet to the antenna input on your VCR/ satellite receiver/cable box.

2 Use a SCART cable (not supplied) to connect your decoder to your VCR/satellite receiver/cable box.
See the manual for your decoder box for more detailed instructions.

3 Use a SCART cable to connect your VCR/satellite receiver/cable box to the AV2 (INPUT 1/DECODER) AV connector on this recorder.

4 Use a SCART cable to connect the AV1•RGB-TV AV connector to your TV.

Connecting an external decoder box (2)

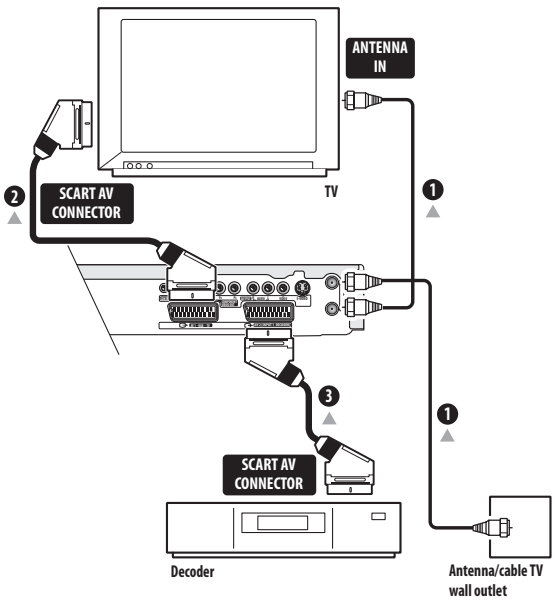
If you only have a decoder, connect it to this recorder and your TV as shown on this page.

Using the setup on this page you can:

- Record scrambled channels received using the recorder's built-in TV tuner.

Important

- Do not connect this recorder 'through' your VCR, satellite receiver or cable box. Always connect each component directly to your TV or AV amplifier/receiver.



1 Connect RF antenna cables as shown.
This enables you to watch and record TV channels.

2 Use a SCART cable (not supplied) to connect the AV1•RGB-TV AV connector to a SCART AV connector on your TV.
This enables you to watch discs.

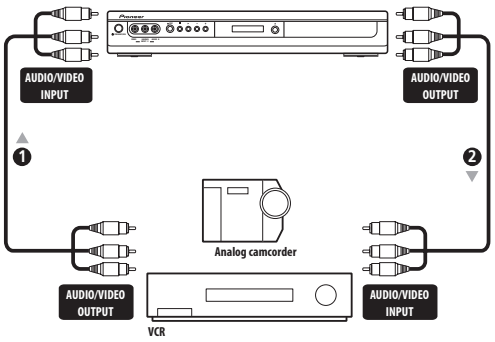
3 Use another SCART cable to connect the AV2 (INPUT 1/DECODER) AV connector to a SCART AV connector on your decoder box.
This enables you to record scrambled TV channels.

Note

- In order to use this setup, you will need to make the following settings from the Initial Setup menu:
  – Set the **AV2/L1 In** setting to **Decoder** from the Initial Setup menu (see *AV2/L1 In* on page 82).
  – From the **Manual CH Setting** screen, set the **Decoder** setting for the scrambled channels to **On** (see *Manual CH Setup* on page 78).

Connecting other AV sources

Connecting a VCR or analog camcorder



1 Connect a set of audio and video outputs of your VCR or camcorder to a set of inputs on this recorder.
This enables you to record tapes from your VCR or camcorder.

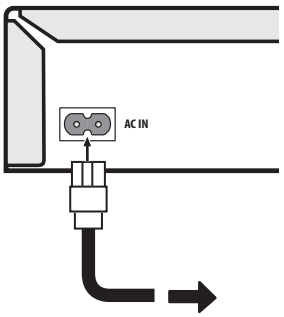
- The front panel connections make convenient connections for a camcorder input (standard video connection only).

2 Connect a set of audio and video inputs of your VCR or camcorder to the outputs on the rear panel of this recorder.
This enables you to record from this recorder to your VCR or camcorder.

- You can use standard video or S-video cables for the video connection.

Plugging in

Before plugging in for the first time, make sure that everything is connected properly.

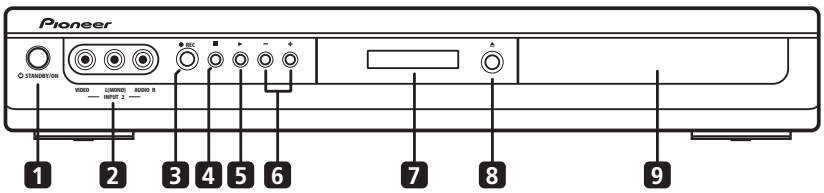


1 Plug the supplied AC power cable into the AC IN inlet and the other end into a standard household power outlet.

English

Chapter 3
Controls and displays

Front panel



1 ⏻ STANDBY/ON
Press to switch the recorder on/into standby.

2 Front panel inputs (page 39)
Audio/video inputs, convenient for connecting a video camera.

3 ● REC
Press to start recording.

4 ■
Press to stop playback or recording.

5 ►
Press to start or restart playback (press while playing to pause playback).

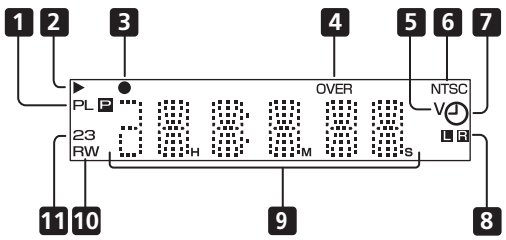
6 +/– (page 51, 53)
Use to change TV channels, skip chapters/tracks, etc.

7 Front panel display
See below for details.

8 OPEN/CLOSE ⏏
Press to open/close the disc tray.

9 Disc tray

Display



1 PL
Lights when a PlayList is playing (only applicable to some VR mode discs recorded on other recorders).

P (page 83)
Lights when the component video output is set to progressive scan.

2 ►
Lights during playback; blinks when paused.

3 ●
Lights during recording; blinks when recording is paused.

4 OVER
Lights when the analog audio input level is too high.

5 V
Lights when an unfinalized Video mode disc is loaded.

6 NTSC
Lights when playing an NTSC disc.

7 ⏲ (page 66)
Lights when a timer recording has been set. (Indicator blinks if the timer has been set but there isn't a recordable disc loaded.)

8 L R (page 84)
Indicates which channels of a bilingual broadcast are recorded.

9 Character display
Shows disc time information, channel number, messages, and so on.

10 R / RW
Indicates the type of recordable DVD loaded: DVD-R or DVD-RW.

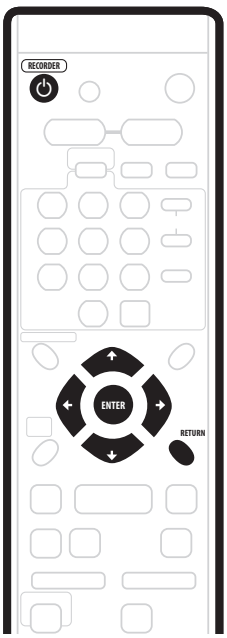
11 2 3 (page 80)
Shows the remote control mode (if nothing is displayed, the remote control mode is 1).

Chapter 4
Getting started

Switching on and setting up

When you switch the recorder on for the first time, you can make several basic settings using the Setup Navigator. This takes you through setting the clock and the internal TV tuner settings.

If you're using the recorder for the first time, we strongly recommend you use the Setup Navigator before starting to use the recorder.



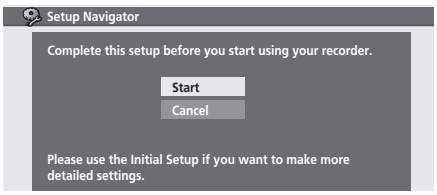
1 Switch on your TV and set the video input to this recorder.

2 Press the ⏻ RECORDER button on the remote control or the ⏻ STANDBY/ON button on the front panel to switch on.

- When you switch on for the first time, your TV should display the Setup Navigator screen. (If the Setup Navigator doesn't appear, you can also access it from the Initial Setup menu; see page 76).
- If this recorder is connected to a compatible TV using a fully-wired 21-pin SCART cable, the recorder will take a few seconds to download country, TV screen size and language information. (Check the manual that came with your TV for compatibility information.)

3 Use the ⬅/➡ (cursor left/right) buttons to choose a language, then press ENTER.

4 Press ENTER to start setting up using the Setup Navigator.


Setup Navigator
Complete this setup before you start using your recorder.
Start
Cancel
Please use the Initial Setup if you want to make more detailed settings.

- If you don't want to use the Setup Navigator, press ⬇ (cursor down) to select **Cancel**, then press **ENTER** to exit the Setup Navigator.

5 Select the Auto Channel Setup ('Auto Scan' or 'Download from TV'), or 'Do not set', then press ENTER.

- Select **Do not set** if you want to skip setting up the channels (because they have already been set up, for example).
- You can only use the **Download from TV** feature if you connected this recorder to your TV using a fully-wired 21-pin SCART cable connected to the **AV1•RGB-TV** AV connector, and if your TV supports this function (check your TV's instruction manual for more details).

- **Use the ⬅/➡ (cursor left/right) buttons to choose your country, then press ENTER.**

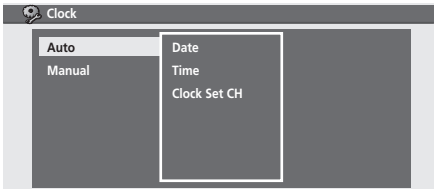
- **Auto-tuning channels**

The **Auto Scan** option automatically scans and sets the channel presets.

- **Downloading channels from your TV**

Use the **Download from TV** option to download all the channels that your TV is tuned to.

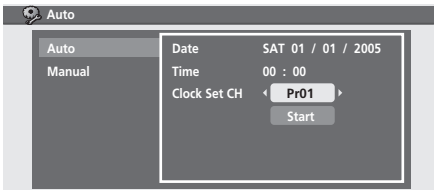
6 Select 'Auto' for automatic time setting, or 'Manual' to set the clock manually, then press ENTER.



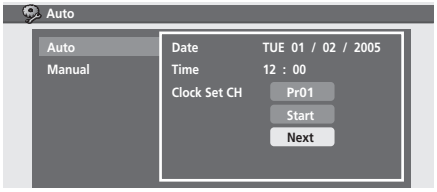
- **Auto clock setting**

Some TV channels broadcast time signals together with the program. This recorder can use these signals to set the clock automatically.

Set 'Clock Set CH' to the channel preset number that broadcasts a time signal, then move the cursor down to 'Start' and press ENTER.



The recorder takes a short while to set the time. After you see that the time has been set, select **Next** to proceed.



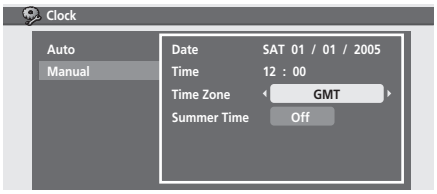
If the time could not be set automatically, press **RETURN** to go back to the previous screen and select **Manual**.

- **Manual clock setting**

If no stations in your area are broadcasting time signals, you can set the clock manually.

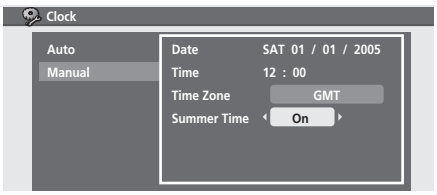
Use the ⬅/➡ (cursor left/right) buttons to set your time zone.

Set the time relative to GMT (see *Time Zone list* on page 96 for a list of the possible time zones).

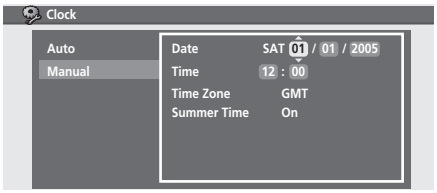


Press ⬇ (cursor down) then use the ⬅/➡ (cursor left/right) buttons to select 'On' or 'Off' for summer time, then press ENTER.

Select **On** if you are currently using summer time.



Set the date (day/month/year) and time, then press ENTER to make all the settings.

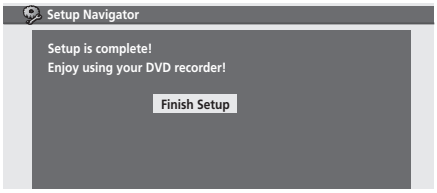


Use the ⬆/⬇ (cursor up/down) buttons to change the value in the highlighted field.

Use the ⬅/➡ (cursor left/right) buttons to move from one field to another.

- You can go back to the previous screen at anytime in the Setup Navigator by pressing **RETURN**.

7 That's it! Press ENTER to finish setting up.



Other settings you can make

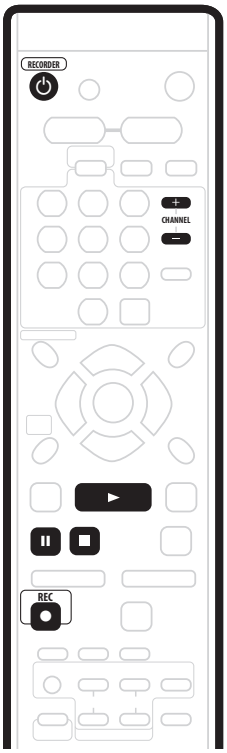
After setting up using the Setup Navigator, you should be ready to start enjoying your DVD recorder. It's possible, however, that you may want to make a couple of additional settings, depending on how the recorder is set up for terrestrial TV broadcasts.

- Manual channel setting – This setting lets you skip channels where there is no station, as well as manually tune to stations. See *Manual CH Setup* on page 78.
- Set Guide Preset – This setting lets you assign guide channels to ensure that the VIDEO Plus+ programming system works correctly. See *Set Guide Preset* on page 79.

Making your first recording

This quick guide shows you how to make a basic recording of a TV program to a recordable DVD.

Recording is covered in much more detail in chapter 6 (*Recording*).



1 If they aren't already on, switch on your TV and this recorder.

Press ⏻ **RECORDER** to switch on.

- Make sure that the video input on your TV is set to this recorder.

2 Press ⏏ OPEN/CLOSE (front panel only) to open the disc tray.

3 Load a blank DVD-R or DVD-RW disc with the label side face-up, using the disc tray guide to align the disc.

- When you load a new, blank DVD-RW disc, the recorder will take a moment to initialize it for recording.

4 Use the CHANNEL +/– buttons to select the TV channel you want to record from.

- You can also use the **+/–** buttons on the front panel if the recorder is stopped.

- Channel presets are numbered 1–99.
- If the recorder is connected to your TV using a SCART cable and your TV supports Direct Recording, it's possible to quickly start recording whatever channel your TV is tuned to. See *Direct recording from TV* on page 66 for detailed instructions.

5 Press ● REC to start recording.

- By default, the recording will be in **SP** (standard play) mode, which will give you around two hours of recording from a blank DVD disc. The different recording mode and their recommended uses are covered in mode detail in Chapter 6.
- You can pause recording by pressing **II**.

  Press ● **REC** or **II** again to restart recording.

6 When you want to stop recording, press ■.

Playing back your recording

The TV program you just recorded should be on the DVD disc as a single title with one or more chapters.

- **Press ► to start playback.**

If you want to stop playback before the end of the recording, press ■.

Using the built-in TV tuner

Changing TV channels

There are three different ways to select TV channels. Note that you can't change the TV channel during playback, recording or during recording standby.

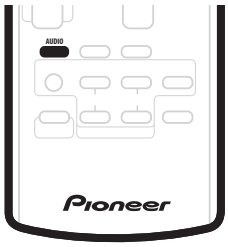
- **CHANNEL +/–** buttons on the remote
- **Number buttons** on the remote – For example, to select channel 4, press **4** then **ENTER**; for channel 34, press **3**, **4**, **ENTER**. (If you don't press **ENTER**, the channel changes after a few seconds.)
- **+/–** buttons on the front panel

Note

- Channel presets are numbered 1–99.

Changing audio channels

You can change the audio channel of the broadcast or external input signal.

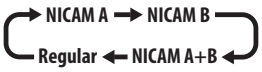


- **Press AUDIO to change the audio.**

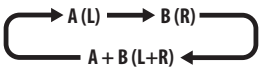
The current audio channel is displayed on-screen.

- If the NICAM audio setting (see *Audio In* on page 84) is set to **NICAM** and you are watching a NICAM broadcast, you can switch between **NICAM** and **Regular** (non-NICAM) audio.

- If the NICAM broadcast is bilingual, you can also select the language.



- You can also select the language for a non-NICAM bilingual broadcast.



- When watching a recording made from an external input with **Bilingual** recording selected (see *Audio In* on page 84), you can switch the audio channel between left (**L**), right (**R**) or both (**L+R**).

Note

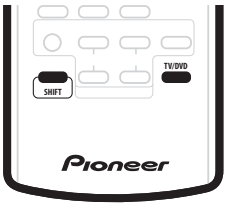
- When recording in Video mode, or in VR mode using the **XP** setting, only one channel of a bilingual broadcast is recorded. In this case, decide which language you want to record before recording by setting the Bilingual Recording setting (see *Audio In* on page 84).

Switching between TV and DVD

When the recorder is stopped or recording you can choose whether to have the audio/video from the built-in TV tuner (or external input) play on your TV ('DVD mode'), or watch the channel that the TV is currently set to ('TV mode').

During playback or when a menu is being displayed on-screen, the sound and video is always routed to your TV and is unaffected by the **TV/DVD** mode setting.

Note that the recorder must be connected to your TV using a SCART cable to be able to use this feature.



- **Press SHIFT and TV/DVD to switch between TV mode and DVD mode.**

Basic playback

This section shows you how to use your recorder for playback of discs (DVD, CD, etc.). More playback features, such as repeat play, are covered in the next chapter.

Important

- Throughout this manual, the term 'DVD' means playback-only DVD-Video discs and DVD-R/RW. If a function is specific to a particular kind of DVD disc, it is specified.
- Some DVD-Video discs don't allow certain playback controls to operate at certain points in the disc. This is not a malfunction.
- VR mode discs recorded on another DVD recorder may contain a PlayList of titles. These can be found after the Original titles on the disc. See also *Using the Disc Navigator to browse the contents of a disc* on page 56.

1 Press ⏻ RECORDER to switch on.

Also turn on your TV and make sure that it is set to the correct video input.

2 Press ⏏ OPEN/CLOSE (front panel only) to open the disc tray.

3 Load a disc.

Load a disc with the label side facing up, using the disc tray guide to align the disc (if you're loading a double-sided DVD-Video disc, load it with the side you want to play face down).

- If you want to play a DTS audio CD, please first read the note on page 53.
- Please see *Disc / content format playback compatibility* on page 37 if you want to play a Dual Disc (DVD/CD hybrid disc).

4 Press ► to start playback.

- If you're playing a DVD-Video or Video CD, a disc menu may appear when you start playback. Use the ↑/↓/←/→ (cursor buttons) and **ENTER** to navigate DVD disc menus, and the number buttons and **ENTER** for Video CD menus.
- See the following sections for more details on playing specific kinds of discs.

5 To stop playback, press ■.

6 When you've finished using the recorder, eject the disc and switch the recorder back into standby.

- To open/close the disc tray, press ⏏ **OPEN/CLOSE** (front panel only). Remove the disc before putting the recorder into standby.

- Press ⏻ **RECORDER** to switch the recorder into standby.

Playing DVD discs

The table below shows the basic playback controls for DVD-Video, and recordable DVD discs.

►	Press to start or restart playback.
❚❚	Press to pause playback; press again to restart playback.
■	Press to stop playback. You can resume playback from the same point by pressing ►. (Press ■ again to cancel the resume function.)
◄◄ ►►	• During playback, press to start scanning. Press repeatedly to increase the scanning speed.
PREV NEXT	Press to skip to previous/next chapter/title. (You can also use the front panel **+/–** buttons to do this during playback.)
CM SKIP	(Commercial skip). Each press skips forward progressively up to a maximum of ten minutes.
1 2 3 4 5 6 7 8 9 0 CLEAR ENTER	• *Except VR mode:* during playback, enter a chapter number then press **ENTER** to skip directly to that chapter within the currently playing title. On some discs, you can also use the number buttons to select numbered items in the disc menu. • *VR mode only:* during playback, enter a title number then press **ENTER**. • *All:* Press **CLEAR** to clear a number entry and start again.
STEP/SLOW	During playback, press to start slow-motion playback. Press repeatedly to change the playback speed. While paused, press to advance a single frame in either direction.
TOP MENU DVD MENU	Press to display the 'top' menu or menu of a DVD-Video disc (these are often the same).
ENTER	Use the cursor buttons to navigate DVD-Video disc menus; press **ENTER** to select items.
RETURN	Press to return to the previous level of a DVD-Video disc menu.

Playing audio CDs and MP3s

The table below shows the basic playback controls for audio CDs and MP3 files.

►	Press to start playback.
❚❚	Press to pause playback; press again to restart playback.
■	Press to stop playback.
◄◄ ►►	*Audio CD only:* Press to start scanning. Press again to increase the scanning speed. (There are two scan speeds; the current scan speed is shown on-screen.)
PREV NEXT	Press to skip to previous/next track (or folder for MP3 disc). (You can also use the front panel **+/–** buttons to do this during playback.)
1 2 3 4 5 6 7 8 9 0 CLEAR ENTER	During playback, enter a track (or folder) number then press **ENTER** to skip directly to that track. Press **CLEAR** to clear a number entry and start again.

Note

- If you want to play a DTS audio CD, make sure the recorder is connected to a DTS-compatible amp/receiver with a digital connection. Noise will be output through the analog outputs. Also make sure that **STEREO** is selected using the **AUDIO** button (see *Switching audio channels* on page 62).
- You can't use scanning when playing MP3 files.

Playing Video CDs

The table below shows the basic playback controls for Video CDs.

Some discs feature Playback Control (PBC for short) menus. These discs show PBC in the display when you load them and display a menu on-screen from where you can select what to watch.

►	Press to start or restart playback.
❚❚	Press to pause playback; press again to restart playback.
■	Press to stop playback. You can resume playback from the same point by pressing ►. (Press ■ again to cancel the resume function.)

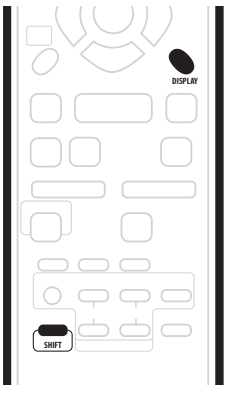
◀◀ ▶▶	• During playback, press to start scanning. Press repeatedly to increase the scanning speed. • Press and hold while paused to start slow-motion playback. Press repeatedly to change the playback speed (forward direction only). • While paused, press to advance a single frame (forward direction only).
PREV ◀◀ NEXT ▶▶	Press to skip to previous/next track. (You can also use the front panel **+**/**–** buttons to do this during playback.) When a PBC menu is displayed, press to display the previous/next page.
CM SKIP	(Commercial skip). Each press skips forward progressively up to a maximum of ten minutes.
1 2 3 4 5 6 7 8 9 0 CLEAR	During playback, enter a track number then press **ENTER** to skip directly to that track. Press **CLEAR** to clear a number entry and start again.
ENTER	While a PBC menu screen is displayed, use to select numbered menu items.
RETURN	Press to display the disc menu of a Video CD playing in PBC mode.

Note

- When playing in PBC mode, some playback features, such as search and repeat play are not available.

Displaying disc information on-screen

You can display various on-screen information about the disc loaded.



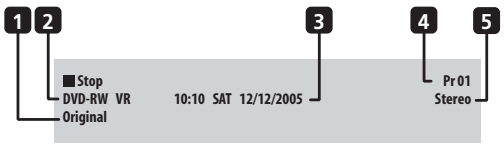
1 Press SHIFT and DISPLAY repeatedly to display/change the on-screen information.

- The on-screen display automatically disappears after 20 minutes.

2 To hide the information display, press SHIFT and DISPLAY repeatedly until it disappears.

The example displays below are a guide only; actual displays vary according to the disc loaded, etc.

Stop display 1



1 Original or PlayList

VR mode DVD-RW discs edited on other DVD recorders may contain Original and PlayList content. (See also the note on page 55 about PlayLists.)

2 Disc type and mode

Shows the disc type (**DVD-VIDEO**, **DVD-R**, **DVD-RW**, **CD**, **MP3**, **NO DISC**, etc.), and the disc mode for recordable DVD, if applicable (**VR** or **Video**). Note that finalized DVD-R/RW Video mode discs are shown as **DVD-VIDEO**.

Shows **PBC**, if Video CD playback control is on.

3 Current date and time

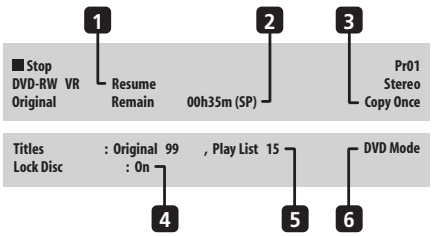
4 Preset name or number

Shows the preset name (if set) or preset number for the currently selected channel.

5 Audio mode

Shows the broadcast audio mode for the current channel preset (**Mono**, **Stereo**, etc.).

Stop display 2



1 Resume

Shows **Resume** if playback can be resumed from the last place stopped.

2 Recording mode and Recording time available

Shows the current recording mode (**XP**, **SP**, **LP**, etc.), and the total recording time available on the disc.

Finalized Video mode DVD-R/RW discs are shown as **DVD-R Finalized** or **DVD-RW Finalized**.

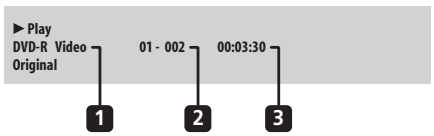
3 Copy control information
Shows recording restrictions.

4 Lock Disc On or Off

5 Number of titles/tracks/folders on the disc

6 Shows the current mode of the recorder (see *Switching between TV and DVD* **on page 52)**

Play display 1

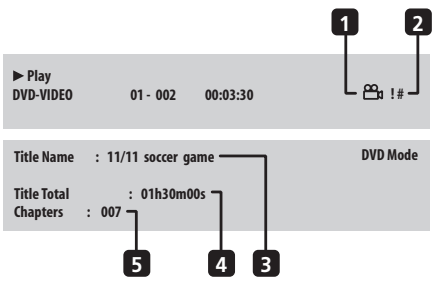


1 Disc type and mode
Shows the disc type (**DVD-R**, **DVD-RW**, **CD**, **MP3**, **NO DISC**, etc.), and the disc mode for recordable DVD, if applicable (**VR** or **Video**). Shows **PBC** if a Video CD is in playback control (PBC) mode.

2 Current title and chapter number
(For CD/Video CD, shows current track; for MP3, shows current folder and track.)

3 Elapsed title time
(For CD, MP3, shows elapsed track time; for Video CD, shows elapsed disc time.)

Play display 2



1 Angle indicator
Lights during multi-angle scenes.

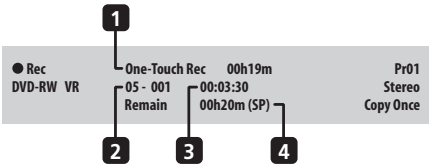
2 Copy protected material (!)/ PureCinema indicator (#)
Shows '**!**' if the playback material is copy-once protected.
Shows '#' if the video output is 24 fps, progressive scan.

3 Current title name

4 Total running time of title

5 Total number of chapters in title

Recording display



1 Timer recording start and stop time or remaining time of one-touch recording
Shows the start and stop times if the current recording is a timer recording. Shows the remaining recording time if the current recording is the one-touch recording.

2 Current title and chapter number

3 Elapsed recording time

4 Recording mode and Recording time available
Shows the current recording mode (**XP**, **SP**, **LP**, etc.), and the available recording time on the disc.

Note

- The Video mode disc displays become the same as a DVD-Video disc once the disc is finalized.
- The total recording time figure is calculated based on a 12cm/4.7GB disc at the displayed record setting.
- Recording and playback times for TV recordings are approximately 0.1% shorter than the actual time. This is because of the slightly different frame rates of TV broadcasts versus DVD.
- This recorder can play PlayLists on discs recorded using other recorders. However, these PlayLists cannot be edited.
- **Copy Once** or **Can't Record** messages may appear in the stop or recording displays. These indicate that the broadcast TV program contains copy control information.

Chapter 5
Playback

Introduction

Most of the features described in this chapter make use of on-screen displays. Navigate these using the ⬆/⬇/⬅/➡ (cursor buttons) and **ENTER**. To go back one level from any screen, use the **RETURN** button. Remember also that the button guide at the bottom of every screen shows which buttons do what.

Many of the functions covered in this chapter apply to DVD discs, Video CDs, CDs, and MP3 discs, although the exact operation of some varies slightly with the kind of disc loaded. The following icons are provided to help you quickly identify which instructions you need for which kind of disc.

- **DVD** Any kind of DVD, DVD-R or DVD-RW
- **DVD-Video** Commercially produced DVD or finalized Video mode DVD-R/RW
- **Video mode** Video mode DVD-R/RW (unfinalized)
- **VR mode** VR mode DVD-RW
- **CD** Audio CD
- **Video CD** Video CD
- **MP3** MP3 files

- Some DVD-Video discs don't allow certain playback controls to operate at certain points in the disc. This is not a malfunction.
- When playing Video CDs, some functions are not available in PBC mode.
- When playing an NTSC disc, the video output will be PAL.
- About DualDisc playback

  A DualDisc is a new two-sided disc, one side of which contains DVD content video, audio, etc. while the other side contains non-DVD content such as digital audio material.

  The non-DVD, audio side of the disc is not compliant with the CD Audio specification and therefore may not play.

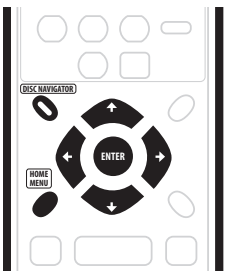
  It is possible that when loading or ejecting a DualDisc, the opposite side to that being played will be scratched. Scratched discs may not be playable.

  The DVD side of a DualDisc plays in this product. DVD-Audio content will not play.

  For more detailed information on the DualDisc specification, please refer to the disc manufacturer or disc retailer.

Using the Disc Navigator to browse the contents of a disc

Use the Disc Navigator to browse the contents of a recordable disc and start playback.

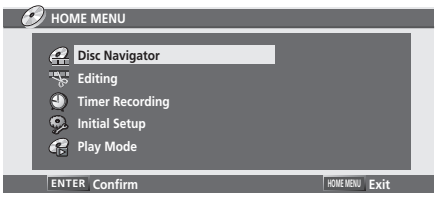


Using the Disc Navigator with recordable discs

VR mode **Video mode**

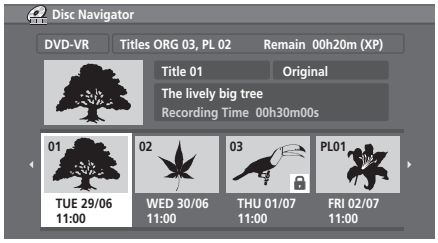
1 Press HOME MENU and select 'Disc Navigator' from the on-screen display.

Alternatively, you can press **DISC NAVIGATOR** to go straight to the Disc Navigator screen.



2 Use the ⬅/➡ (cursor left/right) buttons to select a title to play.

- You can also use the front panel + / – buttons.



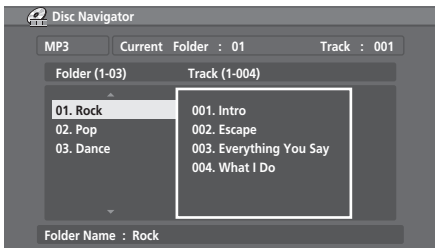
- Some VR mode DVDs recorded on other recorders may have a PlayList of virtual content. PlayList titles appear in the Disc Navigator after the 'Original' titles.

3 Press ENTER to start playback.

Using the Disc Navigator with MP3 discs

MP3

1 Press HOME MENU and select 'Disc Navigator' from the on-screen display.
Alternatively, you can press **DISC NAVIGATOR**, which takes you straight to the Disc Navigator screen.



2 Select what you want to play.
Use the ⬆/⬇/⬅/➡ (cursor buttons) buttons to highlight items and press **ENTER** to select.

Note

- The Disc Navigator is only accessible when there is a disc loaded.
- Another way to find a particular place on a disc is to use the time search mode. See *Search Mode* on page 60.

Navigating discs

ALL

During playback you can easily jump to another title, chapter or track on a disc using the number buttons on the remote.

DVD-Video Video mode

1 During playback use the number buttons to enter a chapter number within the current title.
For example, for chapter 6, press **6**; for chapter 24, press **2**, then **4**.

- To clear and start again, press **CLEAR**.

2 Optionally: Press ENTER.
Otherwise, just wait a few seconds and playback will jump to the new chapter.

VR mode

1 During playback, use the number buttons to input a title number.
For example, for title 6, press **6**; for title 24, press **2**, then **4**.

- To clear and start again, press **CLEAR**.

2 Optionally: Press ENTER.
Otherwise, just wait a few seconds and playback will jump to the new title.

CD Video CD

1 During playback, use the number buttons to input a track number.
For example, for track 6, press **6**; for track 24, press **2**, then **4**.

- To clear and start again, press **CLEAR**.

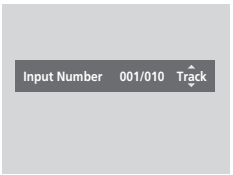
2 Optionally: Press ENTER.
Otherwise, just wait a few seconds and playback will jump to the new track.

MP3

1 During playback, use the number buttons to input a track/folder number.
For example, for folder 6, press **6**; for track 24, press **2**, then **4**.

- To clear and start again, press **CLEAR**.

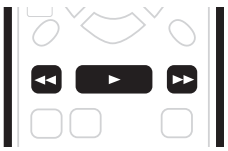
2 Use the ↑/↓ (cursor up/down) buttons to select either 'Track' or 'Folder'.



3 Optionally: Press ENTER.
Otherwise, just wait a few seconds and playback will jump to the new track.

Scanning discs

You can fast scan discs at various speeds, forwards or backward.



1 During playback, press ◄◄ or ►► to start reverse or forward scanning.

- The scanning speed is shown on-screen.

2 Press the same button repeatedly to increase the scanning speed.

DVD

- **Forward:**
  Scan1 → Scan2 → Scan3 → Scan4
- **Reverse:**
  Reverse → Scan1 → Scan2 → Scan3 → Scan4

CD Video CD

- **Forward/Reverse:**
  Scan1 → Scan2

3 To resume normal playback, press ►.

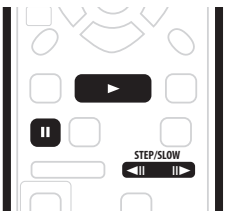
Note

- Depending on the disc, reverse playback may not be smooth.
- Sound can be heard while scanning audio CDs (analog output only).
- No subtitles are displayed while scanning DVD-Video discs.
- It is not possible to scan MP3 files.
- Sound is output when scanning DVDs only in forward **Scan1**. However, when connected using the coaxial digital output, some receivers may not be able to reproduce the scanned audio. No sound is output when using other scan speeds.
- Depending on the recording mode and whether the disc is recorded in Video or VR mode, scanning speeds will vary.
- Depending on the disc, normal playback may automatically resume when a new chapter is reached on a DVD disc.

Playing in slow motion

DVD Video CD

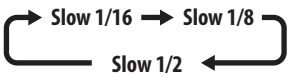
You can play video at various slow motion speeds. DVDs can be played in slow motion in either direction, while Video CDs can only be played forwards in slow motion.



1 During playback, press II.

2 Press and hold ◄II or II► until slow motion reverse or forward playback starts.

3 Press the same button repeatedly to change the slow motion speed.



4 To resume normal playback, press ►.

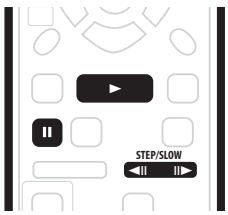
Note

- Reverse slow-motion playback may not be as smooth as forward and may be better with some discs than others.
- Depending on the disc, normal playback may automatically resume when a new chapter is reached on a DVD disc.
- No sound is output during slow-motion playback.

Frame advance/frame reverse

DVD Video CD

You can step forwards or backwards a frame at a time through a DVD. With Video CDs, you can only use frame advance.



1 During playback, press II.

2 Press ◄II or II► to go backwards or forwards one frame.

3 To resume normal playback, press ►.

Note

- Depending on the disc, normal playback may automatically resume when a new chapter is reached on a DVD disc.

The Play Mode menu

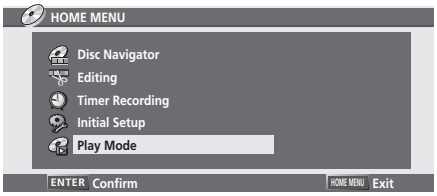
ALL

The Play Mode menu gives you access to search and repeat play functions.

Important

- You can't use the Play Mode features with Video CDs playing in PBC mode, or while a DVD disc menu is being displayed. For other restrictions, see the following sections.

1 Press HOME MENU and select 'Play Mode'.



2 Use the ↑/↓ (cursor up/down) buttons and ENTER to navigate.

- To exit the Play Mode menu, press **HOME MENU**.

Search Mode

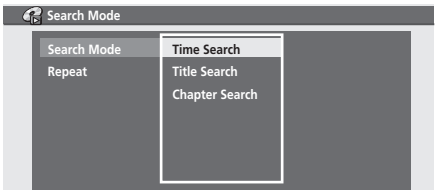
ALL

The Search Mode feature lets you start playback from a specified point in a disc by time or by title/chapter/folder/track number.

1 Select 'Search Mode' from the Play Mode menu.

2 Select one of the search options.

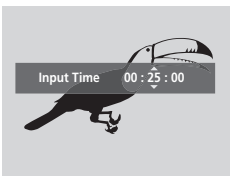
3 Use the number buttons to enter a title/chapter/folder/track number or the search time (in hours, minutes & seconds).



*Time Search (*DVD*):* For example, for 25 minutes into the current title, press **2, 5, 0, 0**. For 1 hour and 15 minutes and 20 seconds into the title, press **1, 1, 5, 2, 0**.

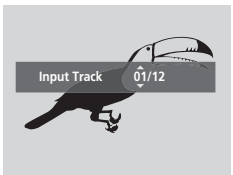
Time Search (Video CD): For example, for 45 minutes into the disc, press **4, 5, 0, 0**.

- You can also use the ↑/↓ (cursor up/down) buttons and **ENTER** to input a time.



Title/Folder/Chapter/Track Search: For example, for track 6, press **6**.

- You can also use the ↑/↓ (cursor up/down) buttons and **ENTER** to input a title/folder/chapter/track number.



4 Press ENTER.

Tip

- You can often select what you want to watch on a DVD disc from the disc menu. Press **DVD MENU** or **TOP MENU** to display the disc menu.

Note

- When using time search, playback may occasionally start slightly before or after the time you input.

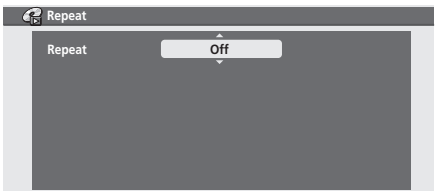
Repeat play

ALL

There are various repeat play options, depending on the kind of disc loaded.

1 Select 'Repeat' from the Play Mode menu.

2 Use the ↑/↓ (cursor up/down) buttons to select a repeat play mode.



VR mode

- For VR mode DVD discs, select **Disc**, **Title** or **Chapter** (or **Off**).

DVD-Video Video mode

- For DVD-Video and Video mode DVD discs, select **Title** or **Chapter** (or **Off**).

CD Video CD

- For CDs and Video CDs, select **Disc** or **Track** (or **Off**).

MP3

- For MP3 discs, select **Disc**, **Folder** or **Track** (or **Off**).

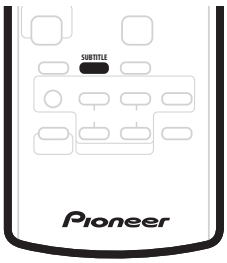
3 To resume normal playback, select 'Off' from the Repeat Play menu.

Displaying and switching subtitles

DVD-Video

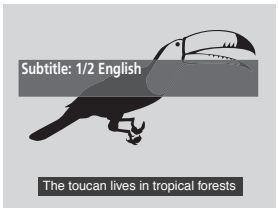
Some DVD discs have subtitles in one or more languages, which you can switch during playback.

Check the disc packaging for details of the subtitle options.



1 Press SUBTITLE repeatedly to select a subtitle option.

The current subtitle language is shown on-screen.



2 To switch off subtitles, press SUBTITLE repeatedly until 'Off' is displayed.

Note

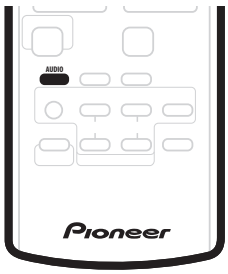
- Some discs only allow you to change subtitle language from the disc menu. Press **TOP MENU** to access.
- To set subtitle preferences, see *Language* on page 88.

Switching DVD soundtracks

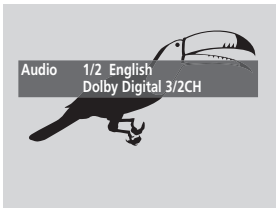
DVD-Video

When playing a DVD disc recorded with two or more soundtracks (often in different languages), you can switch the soundtrack during playback.

Check the disc packaging for details of the soundtrack options.



- **Press AUDIO repeatedly to select an audio soundtrack.**



Note

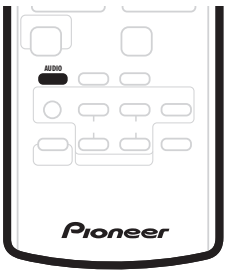
- The sound may drop out momentarily when switching soundtracks.
- Some discs only allow you to change audio language from the disc menu. Press **TOP MENU** to access.
- To set audio language preferences, see *Language* on page 88.
- Some discs feature both Dolby Digital and DTS soundtracks. There is no analog audio output when DTS is selected. To listen to the DTS soundtrack, connect this recorder to a DTS decoder or AV amp/receiver with built-in DTS decoder via the digital output.

Switching audio channels

VR mode CD Video CD MP3

For VR mode content recorded with bilingual audio, you can switch between left (**L**) channel, right (**R**) channel, or both (**L+R**).

When playing Video CDs and audio CDs you can switch between stereo, just the left channel or just the right channel.



1 To display/switch the audio channel, press AUDIO repeatedly.
The audio channel(s) currently playing are indicated on-screen.

VR mode

- **L+R** – Both channels (default)
- **L** – Left channel only
- **R** – Right channel only

CD Video CD MP3

- **Stereo** – Stereo (default)
- **1/L** – Left channel only
- **2/R** – Right channel only

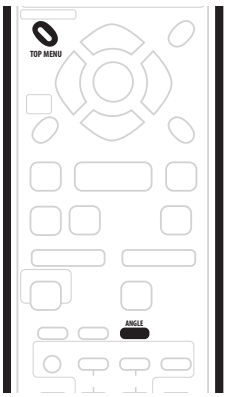
Note

- When playing a Bilingual recording on a VR mode disc, if you are listening to the Dolby Digital soundtrack via the digital output, you cannot switch the audio channel. Set **Dolby Digital** to **Dolby Digital -> PCM** (see *Audio Out* on page 85) or listen via the analog outputs if you need to switch the audio channel.
- When playing a Dolby Digital source, you can also switch channels from the Dual Mono menu of the receiver subwoofer—see *Dual mono setting* on page 28.

Switching camera angles

DVD-Video

Some DVD-Video discs feature scenes shot from two or more angles—check the disc box for details: it should be marked with a icon if it contains multi-angle scenes. When a multi-angle scene is playing, the same icon appears on screen to let you know that other angles are available.



- **To switch the camera angle, press ANGLE.**
  - The angle number is displayed on-screen.
  - If the disc was paused, playback starts again with the new angle.

Note

- You can also change the angle from some DVD-Video disc menus. Press **TOP MENU** to access.

English

Chapter 6
Recording

About DVD recording

This recorder can record on both DVD-R and DVD-RW media. The main difference between the two is that DVD-R discs can only be recorded once, while DVD-RW can be recorded, erased and re-recorded many times.

A further difference between the two disc types is that only DVD-RW can be initialized for *VR mode* recording, which offers much more comprehensive editing functions compared to *Video mode* recording.

The big advantage, however, of Video mode is its compatibility with standard DVD players, most of which will not play VR mode DVD-RW discs (see also the notes below).

While DVD-R discs can only be recorded using the Video mode, you can initialize a DVD-RW disc for Video or VR mode recordings. Once initialized (any previous content is erased in this operation), all recordings on that disc will be in the chosen recording mode.

Important

- You cannot play, edit or record on unfinalized DVD-R/RW discs recorded in Video mode on other DVD recorders. (Likewise, unfinalized Video mode discs recorded on this recorder are not playable on other players/recorders.)
- This recorder cannot record onto DVD-R DL Ver. 3.0 (Dual Layer) discs.
- This recorder cannot record onto CD-R or CD-RW discs.
- Pioneer takes no responsibility for recording failure due to power cuts, defective discs, or damage to the recorder.
- Fingerprints, dirt and small scratches on a disc can affect playback and/or recording performance. Please take proper care of your discs.
- This recorder can record both PAL and SECAM only.
- This recorder cannot record NTSC signals. NTSC discs are playable, although the video output will be PAL.

Note

- Some DVD players, such as some Pioneer models, are compatible with VR mode DVD-RW discs. Check the operating instructions for your player for VR mode compatibility information.
- The maximum number of titles that can be recorded on a DVD-R/RW disc is 99.
- The maximum number of chapters recordable on a DVD-R/RW disc is 999.

Recording time and picture quality

There are six preset recording quality modes:

- **XP** – Highest quality setting, gives about one hour of recording time.
- **SP** (Standard Play) – Default quality, used for most applications, gives about two hours of recording time.
- **LP** (Long Play) – Lower video quality than **SP**, but doubles the recording time to about four hours.
- **EP** (Extended Play) – Lower video quality than **LP**, but this gives about six hours of recording time.
- **SLP** (Super Long Play) – Lower video quality than **EP**, but this gives about eight hours of recording time.
- **SEP** (Super Extended Play) – Lowest video quality, but gives about ten hours of recording time in VR mode or twelve hours in Video mode.

Please note that there is a trade-off between recording time and quality. The longer the possible recording time, the lower the recorded picture quality. You may wish to try recording different kinds of program in different modes to determine the combination of picture quality and recording time that suits your needs.

We recommend that the **XP** mode be used for recording fast moving or action programs.

In all except the **XP** mode, sound is recorded in two channel Dolby Digital format. When set to **XP**, sound is recorded in high quality, uncompressed Linear PCM format.

If the broadcast audio is bilingual and you are recording in Video mode, or in VR mode on the **XP** setting, use the Bilingual Recording setting (page 85) to select the **A/L** or **B/R** audio channel to record before recording starts.

Note

- Note that all recording times (both here and those shown by the recorder) are only approximate. This is because of the way that the video is recorded; you may get slightly more or slightly less, depending on what you're recording.

- Except when a recordable Video mode disc is loaded, changing the recording mode will display the recording time for a VR mode disc.

Restrictions on video recording

- You cannot record copy-protected video using this recorder. Copy-protected video includes DVD-Video discs and some satellite broadcasts. If copy-protected material is encountered during a recording, recording will pause automatically and an error message will be displayed on-screen.
- Video that is 'copy-once only' can only be recorded on a DVD-RW disc in VR mode (see below).
- When recording a TV broadcast or through an external input, you can display copy control information on screen. (see *Displaying disc information on-screen* on page 54).

CPRM

CPRM is a copy protection system with scramble system regarding the recording of 'copy once' broadcast programs. CPRM stands for *Content Protection for Recordable Media*.

This recorder is CPRM compatible, which means that you can record copy-once broadcast programs, but you cannot then make a copy of those recordings. CPRM recordings can only be made on CPRM-compatible DVD-RW (ver. 1.1 or higher) discs formatted in VR mode.

DVD CPRM recordings can only be played on players that are specifically compatible with CPRM.

Recording equipment and copyright

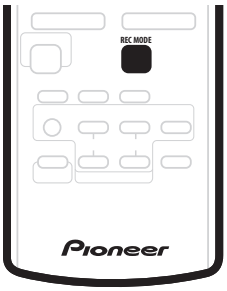
Recording equipment should be used only for lawful copying and you are advised to check carefully what is lawful copying in the country in which you are making a copy. Copying of copyright material such as films or music is unlawful unless permitted by a legal exception or consented to by the rightowners.

- This product incorporates copyright protection technology that is protected by method claims of certain U. S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Setting the picture quality/recording time

VR mode Video mode

Before starting a recording, you will usually want to set the picture quality/recording time. There are six standard settings available, which allow you to choose a balance between picture quality and recording time.



- **Press REC MODE repeatedly to select a recording setting.**
  - **XP** – Fine picture quality
  - **SP** – Standard play
  - **LP** – Long play
  - **EP** – Extended play
  - **SLP** – Super Long Play
  - **SEP** – Super Extended Play

The setting is indicated in the front panel display, and shown on-screen together with the recording time for a blank recordable disc.

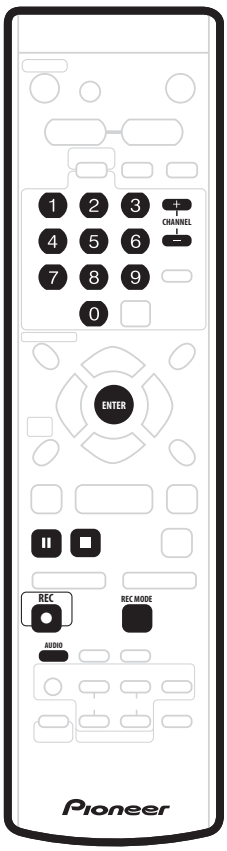
Note

- Except when a recordable Video mode disc is loaded, changing the recording mode will display the recording time for a VR mode disc.

Basic recording from the TV

VR mode Video mode

Follow the instructions below to record a TV program. Recording starts immediately and continues until the disc is full or you stop the recording.



1 Load a recordable disc.

- If you load a new blank DVD-RW disc, the recorder takes a short while to initialize the disc.

2 Use the CHANNEL +/– buttons to select the TV channel to record.

The front panel display shows the channel number:

- While the recorder is stopped, you can also use the number buttons on the remote to select the channel. (For channel 6, press **6** then **ENTER**; for channel 24, press **2, 4** then **ENTER**)
- If the recorder is stopped, you can also use the **+/–** buttons on the front panel to select the channel number.

3 Use the REC MODE button to set the picture quality/recording time.

- See *Setting the picture quality/recording time* above for detailed instructions.

4 Use the AUDIO button to select the audio channel to record.

See *Changing audio channels* on page 51 for more on this.

- When recording in VR mode, if a broadcast is bilingual, both audio channels are recorded, allowing you to switch the audio channel on playback. The only exception to this is when the picture quality is set to **XP**, in which case you do need to select the audio channel before recording.

5 Press ● REC to start recording.

If you want to set a recording end time, press the ● **REC** button repeatedly. The recording time increases in 30 minute increments, up to a maximum of twelve hours. The remaining recording time is shown on-screen and in the front panel display. When the recording ends, the recorder automatically switches into standby.

- To cancel the set recording time, press ● **REC**.
- If you want to pause recording at any time, press **II**. Press again to restart the recording. (If recording in VR mode, a new chapter is started after recording restarts)

6 To stop the recording, press ■.

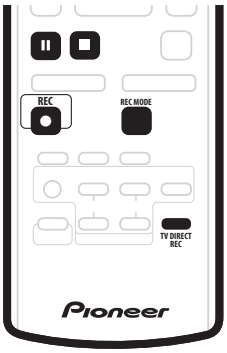
- If you set the recording time in the previous step, you can still stop the recording anytime by pressing ■.
- Recording will stop automatically when there is no more space on the DVD.

Tip

- During recording you can turn on/off the SCART loop through function. During recording, press the front panel **+** button to switch to **SCART THRU** (loop through on), or **–** to switch to **SCART NORM** (loop though off). Note that you can't switch loop through on if recording from the **AV2(INPUT 1/DECODER)** or **AV1•RGB-TV** AV connectors. Also, loop through is automatically reset to off after recording has finished.

Direct recording from TV

If you connected this recorder to your TV using a SCART cable, and your TV supports Direct Recording, you can record whatever is currently being shown on the TV without having to worry about what channel preset the recorder is on. Check the instructions that came with your TV if you're not sure whether your TV supports this feature.



1 If necessary, load a recordable disc.

2 Set the picture quality/recording time using the REC MODE button.

3 Press TV DIRECT REC to start recording.

If you want to set a recording time, press the ● **REC** button repeatedly. The recording time increases in 30 minute increments, up to a maximum of twelve hours. You can see the recording time on-screen and in the front panel display. When the recording ends, the recorder automatically switches into standby if no other operation is being performed.

- To cancel the set recording time, press ● **REC**.
- If you want to pause recording at any time, press ❚❚. Press again to restart the recording. (If recording in VR mode, a new chapter is started after recording restarts)

4 To stop the recording, press ■.

- If you set the recording time in step **3**, you can still stop the recording anytime by pressing ■.
- Recording will stop automatically when there is no more space on the DVD.

Tip

- You can press **TV DIRECT REC** while the recorder is in standby to switch on and immediately start recording.
- Please note that you can't record from another component (VCR, etc.) that is connected by a SCART cable to the **AV2(INPUT 1/DECODER)** AV connector using the TV Direct Recording feature.

Setting a timer recording

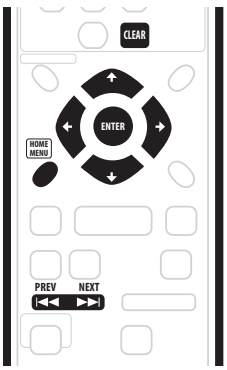
VR mode Video mode

Using the timer recording features you can program up to 32 timer recordings up to a month in advance. Timer recording programs can be set to record just once, every day, or every week.

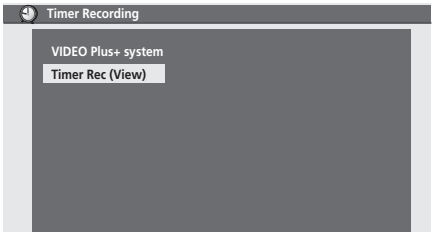
You can set the recorder so that it will adjust the recording quality to try and fit the recording on to the disc if it would not otherwise fit at the recording quality you set (see *Optimized Rec* on page 85 for more on this).

Important

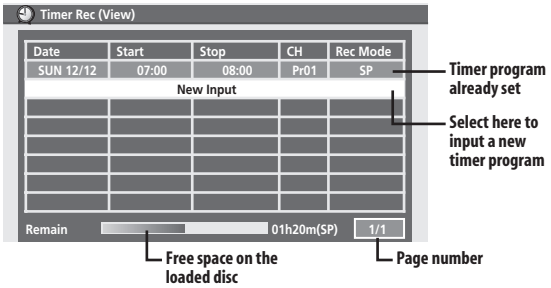
- A timer recording can't be set if there are already 32 timer programs waiting to be recorded.
- Timer recording will not start if:
  – The recorder is already recording.
  – A disc is being initialized, finalized or unfinalized.
- Except when finalizing Video mode discs, timer recording will start when the operation preventing timer recording has finished.
- If a disc is playing when a timer recording is due to start, playback will automatically stop to allow the recording to start.
- The timer indicator lights in the front panel display when the timer is active. If the indicator is blinking it means that there is no disc loaded, or the disc loaded is not recordable.
- Approximately two minutes before a timer recording is set to start, the recorder will go into timer recording standby (assuming that a recordable disc is loaded). In timer recording standby you cannot use some functions.



1 Press HOME MENU, select Timer Recording, then Timer Rec (View).

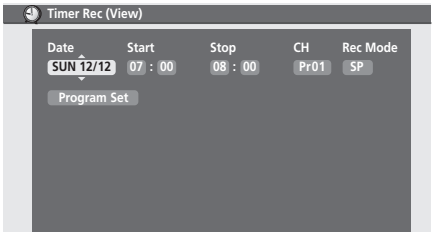


The Timer Rec (View) screen appears, from which you can see timer recordings already set and set new ones.



- If there are more than eight timer programs already set, press ►►I to switch page (go back using the I◄◄ button).
- You can also clear a timer program before it's started by highlighting it and pressing **CLEAR**.

2 Select 'New Input' to set a new timer program, then press ENTER.



3 Enter the timer recording settings.
Use the ⬅/➡ buttons to select a field; use the ⬆/⬇ buttons to change the value.

- **Date** – Choose a date up to one month in advance, or select a daily or weekly program.
- **Start** – Set the recording start time.
- **Stop** – Set the recording end time (maximum length of a timer recording is 12 hours).
- **CH** – Choose a channel (1–99, excluding skip channels), or one of the external inputs from which to record.
- **RecMode** – Select **XP**, **SP**, **LP**, **EP**, **SLP** or **SEP** (See *Recording time and picture quality* on page 63).

4 After entering all the timer recording information, highlight 'Program Set' and press ENTER.
The timer recording list screen is displayed again. The timer program you just input appears in the list.

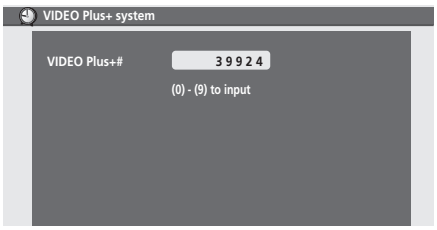
5 To exit the timer recording screen, press HOME MENU.

Timer recording using the VIDEO Plus+® programming system

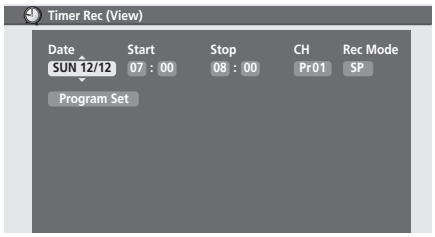
This system makes programming timer recordings very simple. Most TV guides publish PlusCode programming numbers with their program details. If you want to make a timer recording of a program, you just input the corresponding code. The date, start, stop and channel settings are made automatically. All you have to do is tell the recorder the recording mode, and whether it's a once-only recording or a regular recording.

1 Press HOME MENU, select Timer Recording, then VIDEO Plus+ system.

2 Use the number buttons to enter a PlusCode programming number, then press ENTER.
To clear the last digit entered, press **CLEAR**.



3 If you want to change the recording quality, use the ⬅/➡ buttons to highlight Rec Mode, then use the ⬆/⬇ buttons to change.



- See also *Recording time and picture quality* on page 63 and *Setting the picture quality/recording time* on page 64.

4 After making the settings, press ENTER.

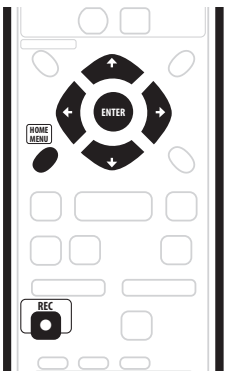
- If you haven't set up the guide channels (or at least the guide channel for the PlusCode programming number that you entered), the recorder will prompt you to enter the channel number that the TV program is showing on.

Tip

- You can check the timer program settings by displaying the timer recording screen.

Extending a timer recording in progress

You can extend a timer recording beyond the programmed end time in two different ways. This can be useful if a broadcast program overruns, for example.



Moving the end time by 30-minute blocks

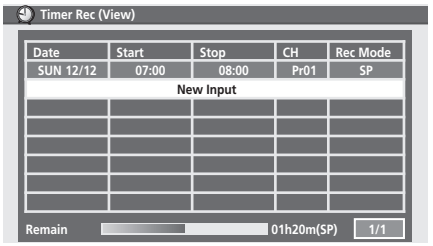
1 During timer recording, press and hold ● REC for three seconds.

The timer indicator disappears from the front panel display.

2 Press ● REC repeatedly to extend recording in 30 minute increments.

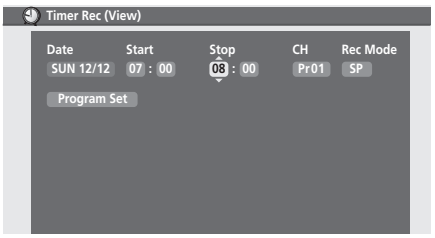
Programming a new end time

1 During timer recording, press HOME MENU, select Timer Recording, then Timer Rec (View).



2 Use the ⬆ button to highlight the current timer recording, then press ENTER.

A screen showing details of the timer recording appears. From this screen, only the recording stop time can be changed.



3 Set a new Stop time for the timer recording.

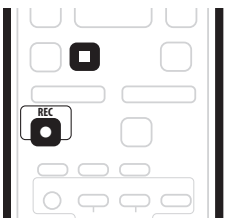
Use the ⬅/➡ buttons to select the hour or minute field, then use the ⬆/⬇ buttons to change the time.

4 Press ENTER to set the new time and exit the screen.

Recording will continue until the new stop time is reached.

Canceling and stopping a timer recording in progress

After a timer recording has started, you can cancel the program (but continue recording), or stop recording completely if you need to.



1 During timer recording, press and hold ● REC for three seconds.
Only the program is canceled (the timer indicator disappears); recording continues so that you can manually stop recording whenever you like.

2 When you want to stop recording completely, press ■.

Preventing use of the recorder before a timer recording (child lock)

You can make all the front panel and remote control buttons inoperative using the child lock feature. This is useful when you set a timer recording and want to make sure that the timer settings are not changed before recording has finished.

1 If the recorder is on, switch it into standby.

2 Press and hold ■ on the front panel for three seconds to lock the controls.
The front panel display briefly shows **LOCK**. If any buttons are pressed on the remote or front panel, **LOCK** is briefly displayed again.

- To unlock the recorder, press and hold ■ on the front panel for three seconds until the display shows **OK**.
- To cancel a timer recording when the recorder is locked, first unlock the recorder (see above), then press and hold ● **REC** for three seconds.

Timer recording FAQ

Frequently Asked Questions

- *Even though the timer is set, the recorder doesn't start recording!*

  Check that the disc loaded is recordable, not locked (see *Lock Disc* on page 81), and that there are fewer than 99 titles already on the DVD.

- *The recorder won't let me enter a timer program! Why not?*

  You can't enter a timer program if the clock isn't set.

- *What happens when two or more timer programs overlap?*

  Basically, the program with the earlier recording start time has priority. However, the recorder will start recording the program with the later start time after the earlier program is finished. If two programs have the same times (but different channels, for example), the program displayed higher up in the list in the timer recording screen has priority.

Recording from an external component

VR mode Video mode

You can record from an external component, such as a camcorder or VCR, connected to one of the recorder's external inputs.

1 Make sure that the component you want to record from is connected properly to the DVD recorder.
See Chapter 2 (*Connecting up*) for connection options.

2 Press VIDEO INPUT repeatedly to select one of the external inputs to record from.
There are two analog inputs. The current input is shown on-screen and in the front panel display:

- On-screen : **AV2/L1** (front panel disply: **L1**) – Input 1
- **L2** – Input 2 (front panel)

Check that the **Audio In** settings for **External Audio** and **Bilingual Rec** are as you want them (see *Audio In* on page 84).

- If the aspect ratio is distorted (squashed or stretched), adjust on the source component or your TV before recording.

3 Set up the recorder.
- Use **REC MODE** to set the recording quality. See *Setting the picture quality/recording time* on page 64 for detailed information.

4 Press ● REC when you're ready to start recording.

Note

- If your source is copy-protected using CopyGuard, you will not be able to record it. See *Restrictions on video recording* on page 64 for more details.

Playing your recordings on other DVD players

VR mode Video mode

Most regular DVD players can play finalized discs recorded in Video mode. A number of players (including many Pioneer models) can also play DVD-RW discs recorded in VR mode, finalized or not. Check the manual that came with the player to check what kinds of discs it will play.

When you finalize a Video mode disc, a title menu is created from which you can select titles when you play the disc. These menus are navigated in the usual way, pressing **DVD MENU** or **TOP MENU** to display the menu, then using the ⬆/⬇/⬅/➡ (cursor buttons) followed by **ENTER** to select titles and start playback.

Finalizing a disc

VR mode Video mode

Finalizing 'fixes' the recordings in place so that the disc can be played on a regular DVD player or computer equipped with a suitable DVD-ROM drive.

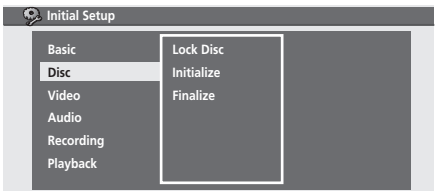
Important

- Once you've finalized a disc recorded in Video mode, you can't edit or record anything else on that disc. However, the finalization on a DVD-RW disc maybe 'undone'; see *Undo Finalize* on page 82 for how to do this.
- A VR mode disc can still be recorded and edited on this recorder even after finalizing.

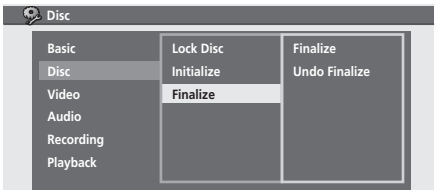
1 Load the disc you want to finalize.
Make sure that the recorder is stopped before proceeding.

2 Press HOME MENU and select 'Initial Setup'.

3 Press ⬇ to select 'Disc'.

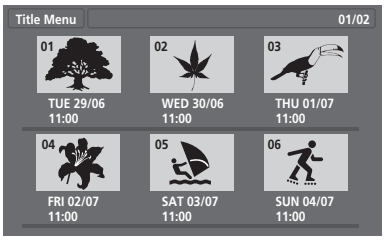


4 Select 'Finalize'.



5 Select Finalize 'Start'.

6 *Video mode only:* **All the titles on the disc are displayed.**



7 The recorder will now start finalizing the disc.
during finalization:

- How long finalization takes depends on the type of disc, how much is recorded on the disc and the number of titles on the disc. A disc recorded in VR mode can take up to one hour to finalize. A disc recorded in Video mode can take up to 20 minutes.

Initializing a DVD-RW disc

DVD-RW

When you first load a blank disc, the recorder will initialize it automatically for recording. You can also manually initialize DVD-RW discs.

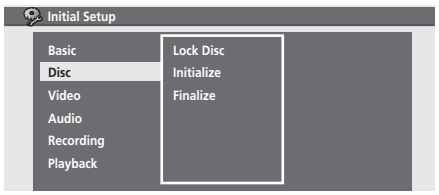
You can initialize a disc for either Video mode recording or VR mode recording.

Important

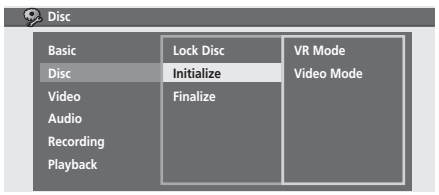
- Initializing a disc will erase everything recorded on it. Make sure there is nothing on the disc that you want to keep!
- You may not be able to re-initialize a disc in a different format if it was originally initialized on an older DVD recorder.

1 Press HOME MENU and select 'Initial Setup'.

2 Press ⬇ to select 'Disc'.



3 Select 'Initialize'



4 Select 'Video Mode' or 'VR Mode' from the initialize options.

5 Select 'Start'.

It takes about 30 seconds to initialize the disc.

Note

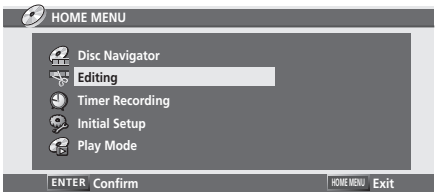
- By default, the recorder initializes blank DVD-RW discs for VR mode recording. See *DVD-RW Auto Init.* on page 86 if you want to change the default to Video mode.
- If a disc was previously finalized on an older DVD recorder, you may not be able to re-initialize and/or initialize it for Video mode recording.

Chapter 7
Editing

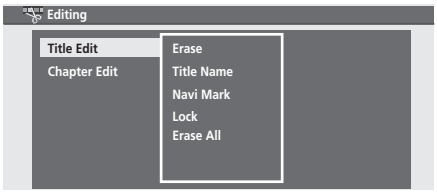
Using this recorder you can edit video content on unfinalized Video mode and VR mode DVD discs. More detailed editing is possible on VR mode discs, which can be edited at the chapter level. Video mode discs can only be edited at the title level.

Once a Video mode disc has been finalized, further editing is not possible.

1 Press HOME MENU and select 'Editing' from the on-screen display.



2 Use the ⬆/⬇ buttons to select 'Title Edit' or 'Chapter Edit' from the Editing menu.



The following title editing functions are available:

- **Erase** – Erase a title (page 72)
- **Title Name** – Name or rename a title (page 73)
- **Navi Mark** (VR mode only) – Change the thumbnail image of a title (page 73)
- **Lock** (VR mode only) – Lock or unlock a title to prevent accidental changes being made (page 74)
- **Erase All** – Erase all titles (page 74)

The following chapter editing functions are available for VR mode discs only:

- **Erase** – Erase a chapter (page 74)
- **Divide** – Divide a chapter into two new chapters (page 75)
- **Combine** – Combine two chapters into one (page 75)

Editing Titles (Title Edit)

Erase

VR mode Video mode

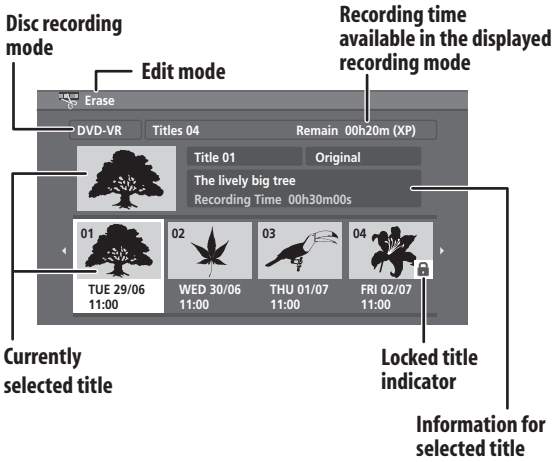
Use this command to erase individual titles from a disc.

When erasing Original content from a VR mode DVD-RW, the available recording time will increase as titles are erased. Erasing a title from a Video mode DVD-RW disc increases the available recording time only if it is the last title on the disc.

Since DVD-R is not erasable/rewritable, erased titles do not free up space on the disc, even though they are not visible anymore.

1 Select 'Erase' from the Title Edit menu options.

2 Use the ⬅/➡ buttons to select the title you want to erase, then press ENTER.



3 Highlight 'Yes' to confirm, or 'No' to cancel, then press ENTER.

When the last title is erased, you will automatically be taken back to the Home Menu.

4 Press RETURN to go back to the Title Edit menu options, or select another title to erase.

Title Name

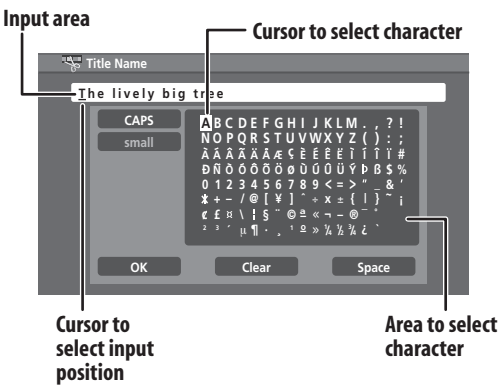
VR mode Video mode

You can give titles names up to 64 characters long for VR mode recordings and 32 characters for Video mode recordings.

1 Select 'Title Name' from the Title Edit menu options.

2 Use the ⬅/➡ buttons to select the title you want to name, then press ENTER to go to the name input screen.

3 Input a name for the selected title.



- A name generated automatically by the recorder will already be in the name input section of the screen.
- Use the ⬆/⬇/⬅/➡ (cursor buttons) and **ENTER** to select characters.
- Select **CAPS** or **small** to change to upper or lower-case.
- Select **Clear** to delete characters. Alternatively, use the **CLEAR** button on the remote control to delete characters directly (press and hold for two seconds to delete the whole name).
- For discs formatted on a different DVD recorder, you will see only a limited character set.

4 Highlight 'OK' then press ENTER to enter the name and return to the title selection screen.

- To return to the title selection screen without saving changes to the title name, press **RETURN**.

5 Press RETURN to go back to the Title Edit menu options, or select another title to name.

Navigation Mark (Navi Mark)

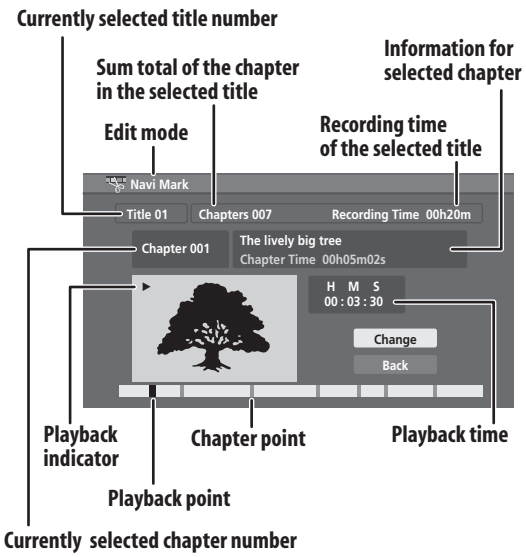
VR mode

Use this function to select a frame from a title to use as that title's thumbnail image in the Disc Navigator. Note that the exact frame used may be slightly different to the one you choose.

1 Select 'Navi Mark' from the Title Edit menu options.

2 Use the ⬅/➡ buttons to select the title then press ENTER.

3 Use the playback controls (▶, ❚❚, ▶▶, ❚▶, etc.) to find the frame you want to use for the thumbnail picture.



4 When the frame you want to use is displayed, select 'Change' then press ENTER.

5 To return to the title selection screen, press RETURN, or select 'Back' then press ENTER.

6 Press RETURN to go back to the Title Edit menu options, or select another title to change.

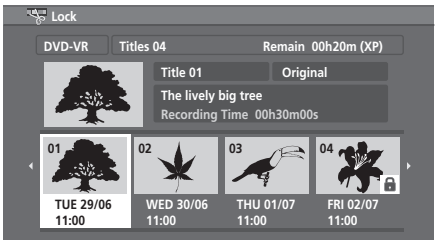
Lock

VR mode

You can lock a title so that it can't be edited or erased accidentally. If you do need to edit it, you can always unlock it later.

1 Select 'Lock' from the Title Edit menu options.

2 Use the ⬅/➡ buttons to select the title you want to lock (or unlock), then press ENTER.



An unlocked title will become locked; a locked title will be unlocked. Locked titles are displayed with a padlock icon.

3 Press RETURN to go back to the Title Edit menu options, or select another title to lock/unlock.

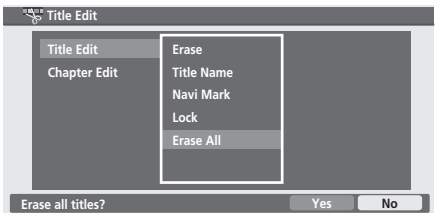
Erase All

VR mode Video mode

This command erases all unlocked titles from the disc (see also *Lock* on page 74).

When editing a DVD-RW, the available recording time will increase when titles are erased. Since DVD-R is not erasable/rewritable, the erased titles do not free up space on the disc, even though they are not visible anymore.

1 Select 'Erase All' from the Title Edit menu options.



2 Select 'Yes' to confirm, or 'No' to cancel, then press ENTER.

When all titles are erased, you will automatically be taken back to the Home Menu.

Editing chapters (Chapter Edit)

VR mode

When editing VR mode DVDs you can edit individual chapters within a title, with commands for erasing, combining and dividing.

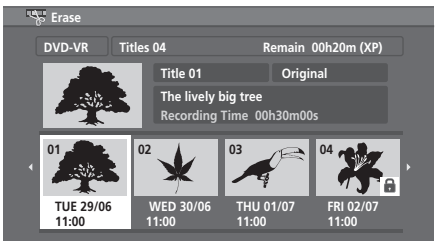
Erase

VR mode

Use this command to erase individual chapters from a title.

1 Select 'Erase' from the Chapter Edit menu options.

2 Use the ⬅/➡ buttons to select the title containing the chapters you want to erase, then press ENTER.



3 Use the ⬆/⬇/⬅/➡ (cursor buttons) to select the chapter you want to erase, then press ENTER.

4 Highlight 'Yes' to confirm, or 'No' to cancel, then press ENTER.

5 To return to the title selection screen, press RETURN.

6 Press RETURN to go back to the Chapter Edit menu options, or select another title to edit.

Divide

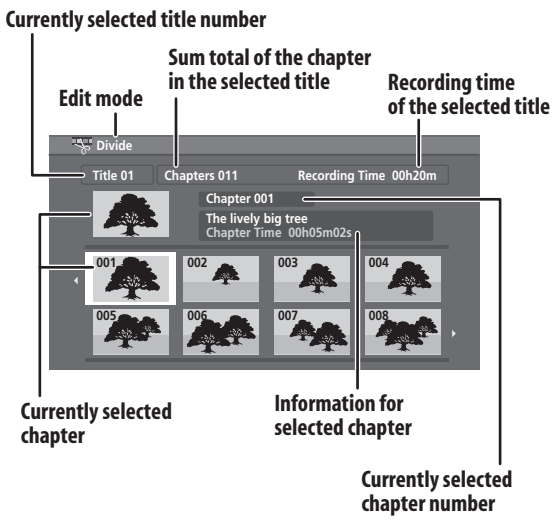
VR mode

Use this command to divide a chapter into two new ones. Note that the exact divide point used may be slightly different to the one you choose.

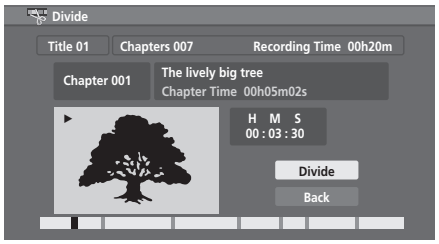
1 Select 'Divide' from the Chapter Edit menu options.

2 Use the ⬅/➡ buttons to select the title containing the chapter you want to divide, then press ENTER.

3 Use the ⬆/⬇/⬅/➡ (cursor buttons) to select the chapter, then press ENTER.



4 Use the playback controls (▶, ❚❚, ◀◀, ▶▶, etc.) to find the place you want to divide the chapter.



5 Select 'Divide' and press ENTER to divide the chapter.

6 To return to the chapter selection screen, press RETURN, or select 'Back' then press ENTER.

7 Press RETURN to go back to the Chapter Edit menu options, or select another title to edit.

Note

- When divided, both of the new chapters must be longer than three seconds.

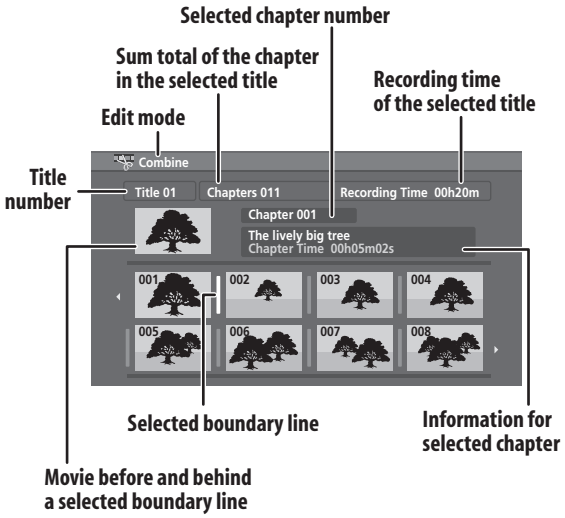
Combine

VR mode

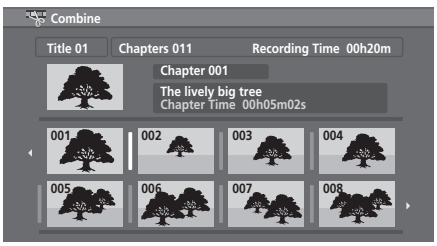
Use this function to combine two adjacent chapters into one.

1 Select 'Combine' from the Chapter Edit menu options.

2 Use the ⬅/➡ buttons to select the title containing the chapters you want to combine, then press ENTER.



3 Highlight the bar divider between the two chapters you want to combine, then press ENTER.



4 To return to the title selection screen, press RETURN.

5 Press RETURN to go back to the Chapter Edit menu options, or select another title to edit.

Note

- It may not always be possible to combine two chapters, even though they are adjacent. If a chapter has been divided into three, then the middle chapter erased, it is not possible to combine the two remaining chapters into one.

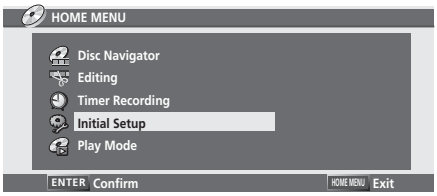
Chapter 8

The Initial Setup menu

Using the Initial Setup menu

The Initial Setup menu is where you can set various recorder options for sound, picture, language and so on.

- **Press HOME MENU and select 'Initial Setup'.**



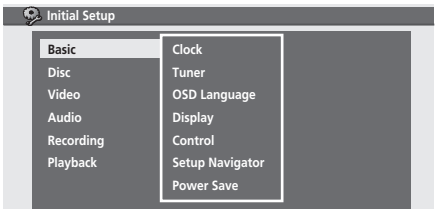
- Some settings can only be changed when the recorder is stopped. during playback these settings are grayed out in the Initial Setup menu.
- Except for the Setup Navigator, menu screens are exited automatically after 20 minutes of inactivity.

Basic settings

Clock

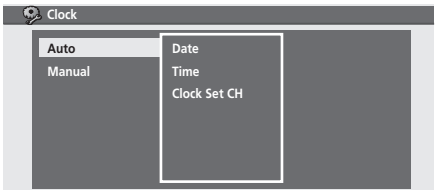
The date (day, month, year) and time must be set before you can use any of the timer recording features.

The clock can be set automatically if there is a broadcast station transmitting clock signals, or manually. Select **Auto** to set the clock automatically or **Manual** to display the clock setting screen.

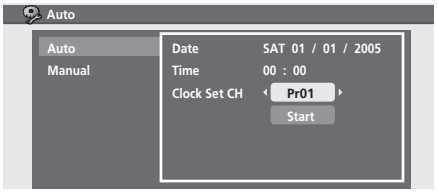


- **Auto clock setting**
  Some TV channels broadcast time signals together with the program. This recorder can use these signals to set the clock automatically.

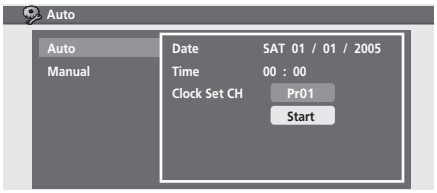
1 Select 'Auto'.



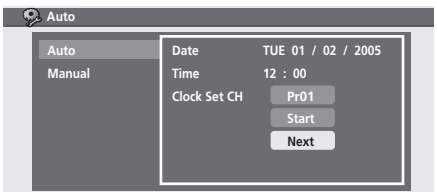
2 Set 'Clock Set CH' to the channel preset number that broadcasts a clock signal.



3 Move the cursor down to 'Start' and press ENTER.



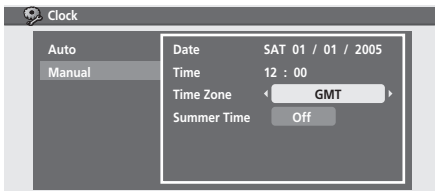
The time and date is displayed when the recorder has successfully set the clock.



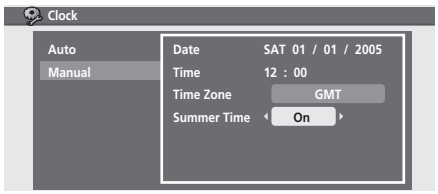
- If the time could not be set, press **RETURN** to go back to the previous screen and select **Manual**.

- **Manual clock setting**
  If no stations in your area are broadcasting time signals, you can set the clock manually:

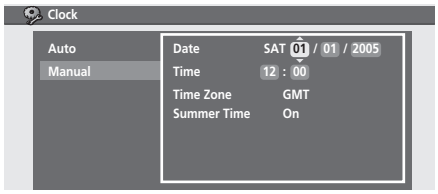
1 Set your time zone.
Set this by selecting a time relative to GMT (see *Time Zone list* on page 96 for the possible time zones).



2 Move the cursor down and select 'On' for summer time if you are currently on summer time, then press ENTER.



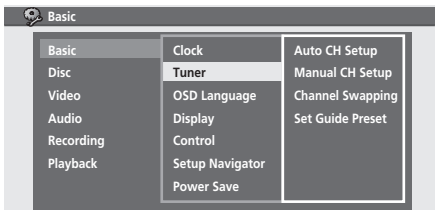
3 Set the date (day/month/year) and time, then press ENTER to make all the settings.



Use the ⬆/⬇ buttons to change the value in the highlighted field.

Use the ⬅/➡ buttons to move from one field to another.

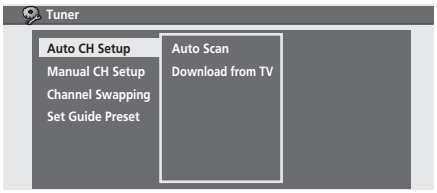
Tuner



Auto CH Setup : Auto Scan

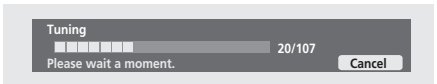
This recorder has a built-in TV tuner for recording PAL B/G, PAL I, SECAM L and SECAM D/K TV programs off the air or from analog cable TV. We recommend that you first use the Auto Channel Setup described here to tune into the channels in your area, then if there are any unwanted channels, you can disable them using Channel Skip (described below).

1 Choose 'Tuner' from the Initial Setup menu, then 'Auto Channel Setup', then 'Auto Scan'.



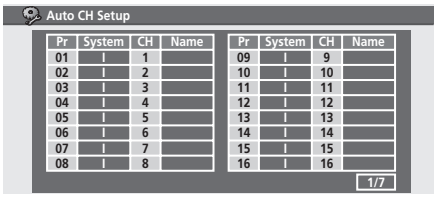
2 Select your country.

3 Press ENTER to start tuning.



- You can cancel before auto tuning has finished by pressing **ENTER** again.

After auto scanning has finished, the channel mapping screen appears showing which channels have been assigned to which program numbers.



Use the ⏮/⏭ buttons to display the previous/next page.

4 Press HOME MENU to exit this screen.

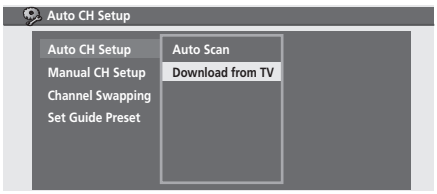
Note

- You can fine-tune individual stations using the **Manual CH Setting** feature. See *Manual CH Setup* below for how to use this.

Auto CH Setup : Download from TV

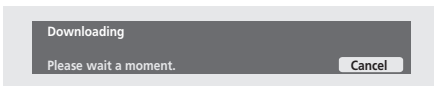
If you connected this recorder to your TV using the **AV1•RGB-TV** AV connector, and if your TV supports this function, you can download all the channels that your TV is tuned to. Check your TV's instruction manual for more details.

1 Choose 'Download from TV'.



2 Select your country.

3 Press ENTER to start downloading.



After downloading has finished, the channel mapping screen appears showing which channels have been assigned to which program numbers.

Tip

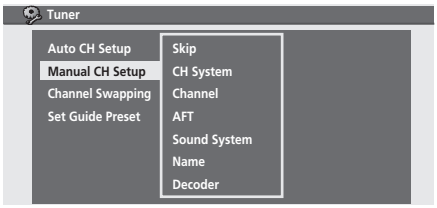
- If the channel tuning information is updated in the TV, the recorder will automatically download the new information.

Manual CH Setup

The channel skip function lets you skip channels where there is no station so that as you change channels, you only see channels that have a station.

The manual tuning function allows you to manually tune to stations, should you need to.

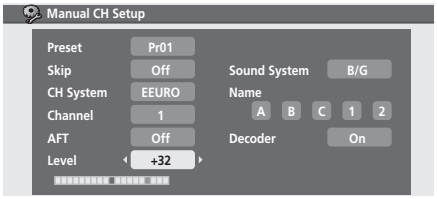
1 Select 'Manual CH Setup'.



Press **ENTER** to go to the country setting screen.

2 Select your country.

3 Press ENTER to go to the manual channel setup screen.



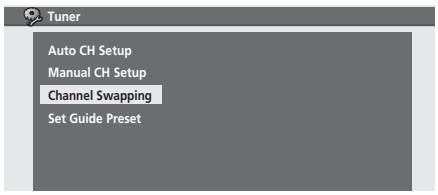
From this screen there are nine parameters you can set:

- **Preset** – Change the preset number.
- **Skip** – If you want to skip the displayed channel (because there is no station assigned to that channel), change the **Skip** setting to **On**.
- **CH System** – Set the channel system used in your area or region.
- **Channel** – Change the channel number assigned to the current preset.
- **AFT** (Auto Fine Tune) – When set to **On**, the station is automatically tuned; set to **Off** to manually fine tune (see below).
- **Level** – Set the AFT level (see above).
- **Sound System** – Set the sound system used for the current channel.
- **Name** – Move the cursor right then input a name for the current station, (up to five characters) then press **ENTER**.
- **Decoder** – If the current channel is scrambled, requiring a decoder connected to the **AV2 (INPUT 1/ DECODER)** AV connector, set this to **On**. See also *AV2/L1 In* on page 82.

Channel Swapping

The preset swap feature lets you swap the channel assignments of different programs. This is so that you can group together station presets which naturally go together.

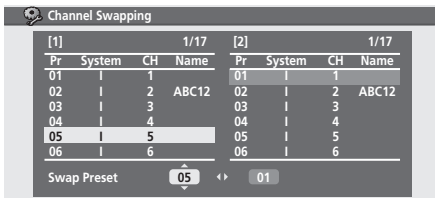
1 Select 'Channel Swapping'.



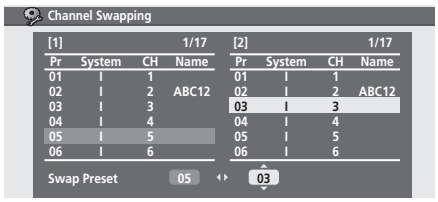
2 Press ENTER to go to the swap presets screen.

3 Use the ⬆/⬇ buttons to select a preset station to swap.

- Use the I◀◀/▶▶I buttons to display the previous/ next page.



4 Press ➡, then select a preset station to swap with the first preset.



5 Press ENTER to swap the presets.

6 If you want to swap more presets, press ⬅, then repeats steps 3 to 5.

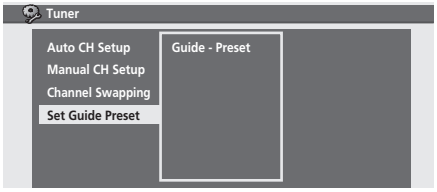
7 Press HOME MENU to finish and exit.

Set Guide Preset

- Default setting: *n/a*

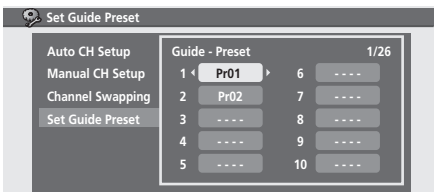
Guide channels are used by the VIDEO Plus+ system so that the channel number specified in the VIDEO Plus+ programming numbers can be guaranteed to correspond to the correct station.

1 Select 'Set Guide Preset', then press ENTER.



2 Assign channel numbers to the guide channels as necessary.

Look in your TV guide to see which channel numbers should be assigned to which guide channels.

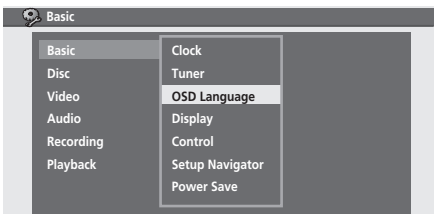


- Use the ⬆/⬇ buttons to change the guide channel for setting.
- Use the ⬅/➡ buttons to change the channel number.
- Use the I◀◀/▶▶I buttons to display the previous/ next 10 guide channels.

3 To return to the previous screen, press ENTER or RETURN.

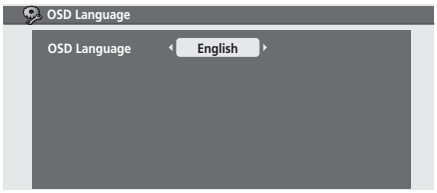
OSD Language

- Default setting: **English**



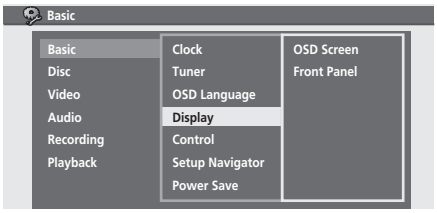
This sets the language of the on-screen menus and displays.

• **Select 'OSD Language' then use the ⬅/➡ buttons to select a language option.**

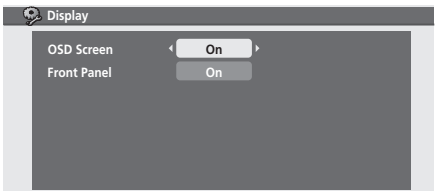


Display

• Default setting: **On**



You can have the recorder show or hide on-screen operation displays (for Play, Stop, etc.), and choose whether to switch the front panel display on or off when the recorder is in standby.

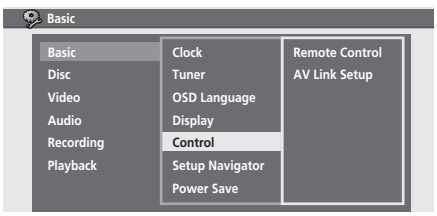


Control

Remote Control

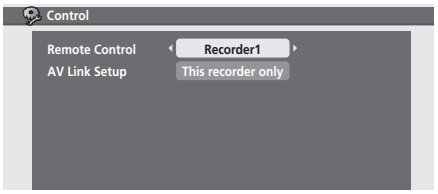
• Default setting: **Recorder1**

You only need to set this if you are using more than one Pioneer DVD recorder in the same room.

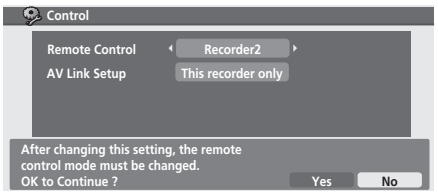


So that each remote control operates only its own recorder, make this setting different for each recorder and remote in the room.

There are three different recorder IDs. When set to **Recorder2** or **Recorder3**, the remote control mode is shown in the front panel display.



After selecting a new recorder ID, you have to confirm the change by selecting **Yes** or **No** (use the ⬅/➡ buttons), then pressing **ENTER**.

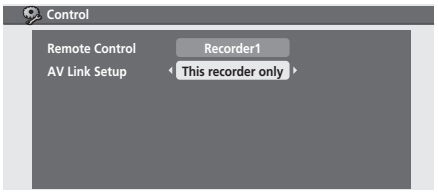


Note that as soon as you change the recorder ID, the remote becomes inoperative until you change the remote to the same ID.

To set the remote, press and hold **RETURN** and a number button (**1**, **2** or **3**) for five seconds.

AV Link Setup

• Default setting: **This recorder only**



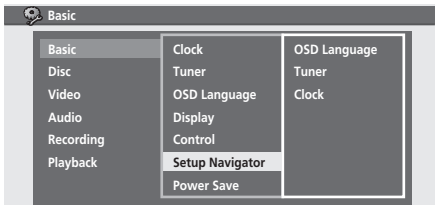
This setting determines how AV Link signals are handled when the recorder is in standby. Choose the **This Recorder Only** setting for AV Link signals to affect only this recorder. Choose **Pass Through** to have this recorder pass on AV Link signals to other connected devices without affecting this recorder.

Note

• When set to **Pass Through**, make sure to set **Power Save** (page 81) to **Off**.

Setup Navigator

- Default setting: *n/a*

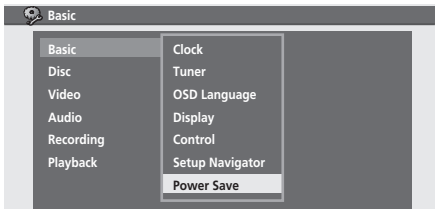


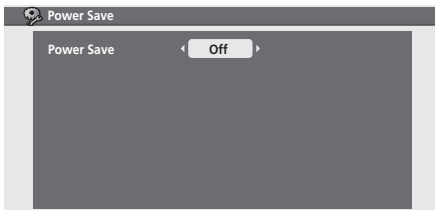
The Setup Navigator appears automatically when you switch on the recorder for the first time (or after resetting the recorder). It is also available from the Initial Settings menu should you need it at any other time.

See also *Switching on and setting up* on page 48.

Power Save

- Default setting: **Off**





When set to **Off**, signals arriving at the **ANTENNA IN** terminal and at the **AV2 (INPUT 1/DECODER)** AV connector are passed through to the **ANTENNA OUT** terminal and to the **AV1•RGB-TV** AV connector, respectively, when the recorder is in standby.

You can cut the standby power consumption of the recorder by turning off the through function for one or both terminals:

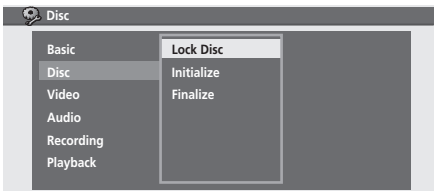
- **Mode1** – Through function only for the antenna terminal
- **Mode2** – No through function
- **Off** – Through function for both antenna terminal and AV connector

Disc settings

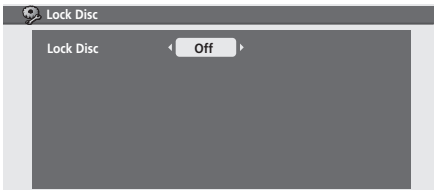
Lock Disc

VR mode

- Default setting: **Off**



Set to **On** to prevent accidental recording, editing or erasing of the disc loaded. If you need to unlock the disc to make edits, select **Off**.



Important

- A locked disc can still be initialized (which will completely erase the disc).

Initialize

DVD-RW

See *Initializing a DVD-RW disc* on page 71 for detailed instructions on this option.

Finalize

DVD-RW DVD-R

Finalizing 'fixes' the recordings in place so that the disc can be played on a regular DVD player or computer equipped with a suitable DVD-ROM drive.

See *Playing your recordings on other DVD players* on page 70 for detailed instructions.

Undo Finalize

DVD-RW

You can undo the finalization on Video mode DVD-RW discs recorded and finalized on this recorder. You need to do this if you want to record more material or edit material already on the disc.

If when you load a disc the message **This disc cannot be recorded. Undo the finalization** is displayed, use this command to be able to record on the disc using this recorder.

Select **Finalize**, then **Undo Finalize Start** from the finalize options screen.

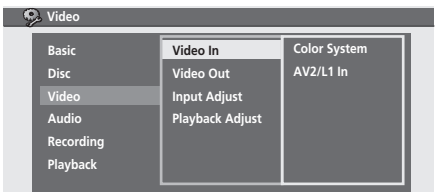
Pioneer cannot guarantee that undoing the finalization will work with discs that were finalized on another recorder.

Video settings

Video In

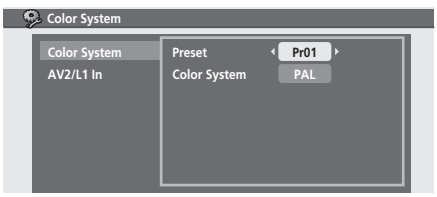
Color System

- Default setting: **Auto**



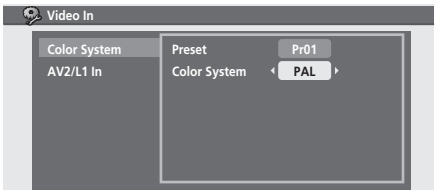
On the default setting, the recorder automatically detects whether the video signal from the built-in tuner or from one of the external inputs is **PAL** or **SECAM**. You may, however, occasionally need to set it manually if the picture is not displayed properly.

1 Select 'Color System', then press ENTER.



2 Use the ⬅/➡ buttons to change the channel preset then press ⬇.

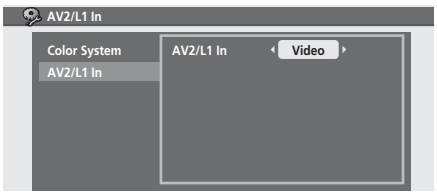
3 Use the ⬅/➡ buttons to change the color system for the current input or built-in tuner.



AV2/L1 In

- Default setting: **Video**

You only need to make this setting if you connected this recorder to another component using the **AV2 (INPUT 1/ DECODER)** *AV connector.*



The **AV2 (INPUT 1/DECODER)** AV connector input can be set to one of the following settings:

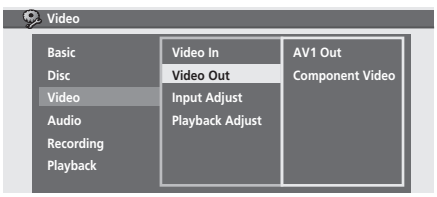
- **Video** – Sets the input signal type to composite video.
- **S-Video** – Sets the input signal type to S-video.
- **Decoder** – Use this setting if you are using a decoder connected to the **AV2 (INPUT 1/DECODER)** input. (For scrambled channels, make sure that the manual channel **Decoder** setting is set to **On**—see *Manual CH Setup* on page 78)

Video Out

AV1 Out

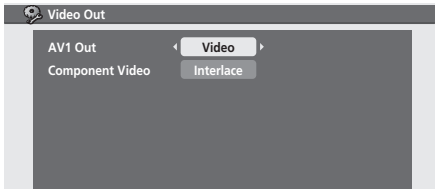
- Default setting: **Video**

You only need to make this setting if you connected this recorder to your TV using the **AV1•RGB-TV** *SCART AV connector.*



Important

- If you make a setting here that is incompatible with your TV, the TV may not display any picture at all. If this happens either switch everything off and reconnect to the TV using either the supplied video cable, or an S-video cable (see *Using the S-video or component video output* on page 42 for more on this), or reset the recorder (see *Resetting the recorder* on page 90 for how to do this).



- **Video** – Compatible with all TVs, but lowest quality of the three AV settings.
- **S-Video** – Almost the same quality as RGB, but can give better results if you are using a long SCART cable.
- **RGB** – If your TV is compatible, this setting gives the best picture quality.

Note

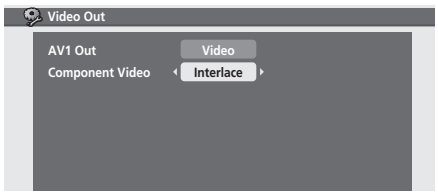
- When set to RGB, the **Component Video** setting has no effect.

Component Video

- Default setting: **Interlace**

You only need to make this setting if you connected this recorder to your TV using the component video jacks.

If your TV is compatible with progressive-scan component video, set this **Progressive** for the highest quality picture. If your TV is not compatible with progressive-scan video, leave it set to **Interlace**.

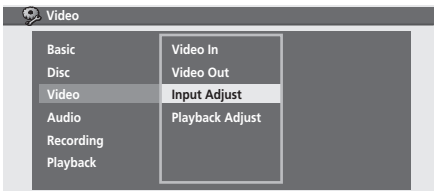


- See also *Progressive scan video* in the glossary on page 101.

Important

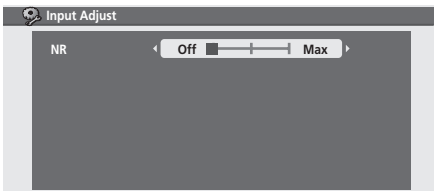
If you switch to **Progressive** when using a TV that is not compatible with progressive-scan video, you will not be able to see anything displayed on your TV. If this happens, press and hold the **+** button on the front panel, then press ⏻ **STANDBY/ON**. This will set the recorder's video output back to **Interlace**.

Input Adjust



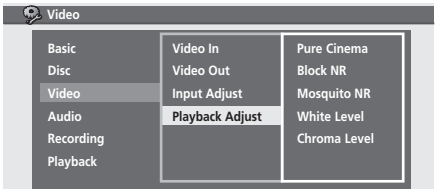
Use this setting to adjust the amount of noise reduction (NR) applied to the video signal.

From the Input Adjust screen, use the ⬅/➡ buttons to adjust the **NR** setting from **Off** to **Max**.



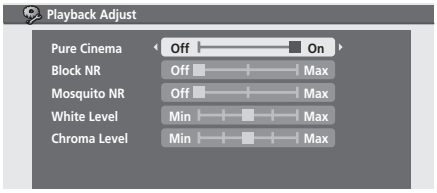
Press **ENTER** to confirm and exit the screen.

Playback Adjust



Use the various Playback Adjust settings to adjust the picture quality of the video output.

From the Playback Adjust screen, use the ⬆/⬇ buttons to select a setting, then use the ⬅/➡ buttons to adjust it.

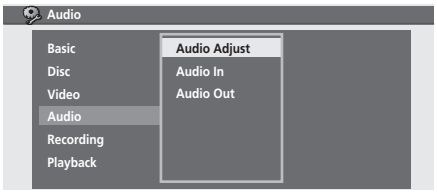


- **Pure Cinema** – This setting optimizes the picture for film material when the video output is set to progressive scan. Usually it is best set to **On**, but try switching it **Off** if the picture appears unnatural.
- **Block NR** – Adjusts the amount of noise reduction applied to the block noise (artifacts visible in areas of flat color, caused by MPEG compression).
- **Mosquito NR** – Adjusts the amount of noise reduction applied to the mosquito noise (artifacts visible around the edge of an image, caused by MPEG compression).
- **White Level** – Adjusts the intensity of white.
- **Chroma Level** – Adjusts how rich colors appear.

Press **ENTER** to exit the screen.

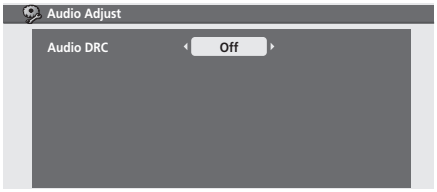
Audio settings

Audio Adjust setting



When watching Dolby Digital material at low volume via the analog audio outputs (or via the digital output when the Dolby Digital Out setting is set to **Dolby Digital → PCM**), low level sounds—including some of the dialog—can be difficult to hear properly. Switching on Audio DRC (Dynamic Range Control) can help by bringing up the low level sounds, while controlling high level peaks.

From the Audio Adjust screen, use the ⬅/➡ buttons to adjust the **Audio DRC** setting **On** or **Off**. (**Off** leaves the dynamic range untouched; **On** 'squashes' the dynamic range, making it good for lower-level listening.)

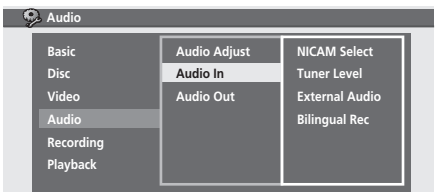


Press **ENTER** to confirm and exit the screen.

Tip

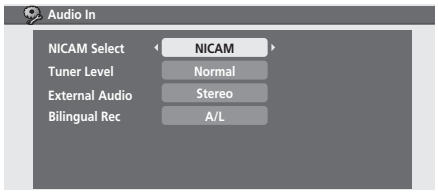
- Audio DRC is not effective when listening to a disc via the digital output when **Dolby Digital Out** is set to **Dolby Digital**. In this case adjust the dynamic range from the receiver subwoofer—see *Dynamic Range Control* on page 28.

Audio In



Use the Audio In settings to specify which channel(s) of a dual mono source to record.

From the Audio In screen, use the ⬆/⬇ buttons to select a setting, then use the ⬅/➡ buttons to adjust it.

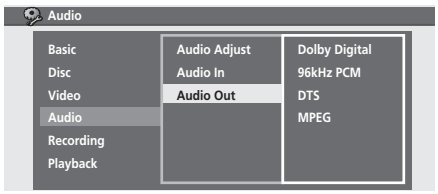


- **NICAM Select** – If you want to record the non-NICAM audio in a TV broadcast, select **Regular Audio**, otherwise set to **NICAM**. (When set to **NICAM**, you can still select **Regular Audio** using the **AUDIO** button. See *Changing audio channels* on page 51.)
- **Tuner Level** – Set to **Compression** if the audio level from the built-in tuner is excessively high causing distortion.
- **External Audio** – Select **Stereo** if the external audio input is regular stereo, or **Bilingual** if each channel carries a separate soundtrack.
- **Bilingual Rec** – When recording a bilingual source from an external input in Video mode or VR mode set to **XP**, you can choose to record either the **A/L** (left), or the **B/R** (right) audio channel.

Note

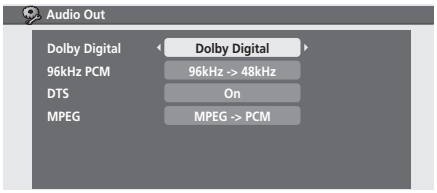
- Except in **XP** recording mode, if you're recording in VR mode, both channels will be recorded and you can switch them as you like on playback.

Audio Out



Use the various Audio Out settings to make sure that the digital audio output is compatible with the receiver subwoofer (or other connected component). You may need to check the operating instructions that came with the connected component to see which digital formats it's compatible with.

From the Audio Out screen, use the ⬆/⬇ buttons to select a setting, then use the ⬅/➡ buttons to adjust it.



- **Dolby Digital** – If the connected component is Dolby Digital compatible, set to **Dolby Digital**, otherwise set to **Dolby Digital -> PCM**.
- **96kHz PCM** – If the connected component is compatible with high sampling rate audio (88.2 / 96 kHz), set to **96kHz**, otherwise set to **96kHz -> 48kHz**.
- **DTS** – If the connected component has a built-in DTS decoder, set to **On**, otherwise set to **Off**. (See also *Important* below.)
- **MPEG** – If the connected component is MPEG audio compatible, set to **MPEG**, otherwise set to **MPEG -> PCM**.

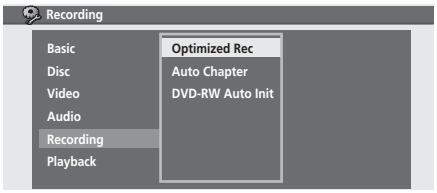
Important

- If you set **DTS** to **On** with a non-DTS compatible amplifier, noise will be output when you play a DTS disc.
- When set to **On**, there is no analog audio output when playing a DTS DVD-Video disc.
- When playing a DTS audio CD (even when **DTS** is **Off**), noise is output from the analog outputs. *Do not play this through your amplifier and speakers.*
- When playing a DTS audio CD, make sure that **Stereo** is selected using the **AUDIO** button. See *Switching DVD soundtracks* on page 61.

Recording settings

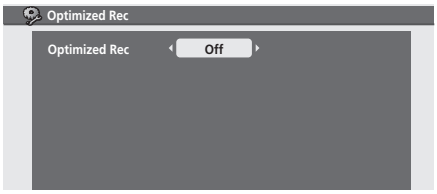
Optimized Rec

- Default setting: **Off**



On the default setting, if a timer program (Standard or VIDEO Plus+ programming system) is set but there isn't enough space on the disc at the recording quality set, the recording will start, but it will be cut off when the disc is full.

Set **Optimized Rec** to **On** to have the recorder automatically adjust the recording quality to fit the available disc space.

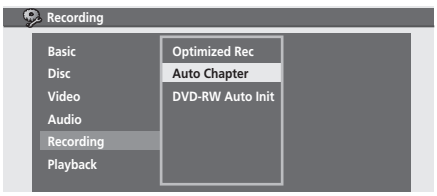


Note

- The quality of recordings may be reduced if a longer recording time is used.
- If, even on recording level **SEP**, there is insufficient space available on the disc, the recording is made on **SEP** but recording will stop once the disc is full.
- Optimized Recording only compensates for the first (earliest starting) timer program if more than one has been set.
- Unlike other recordings made using this recorder, the title name of an optimized recording does not contain the recording mode.

Auto Chapter

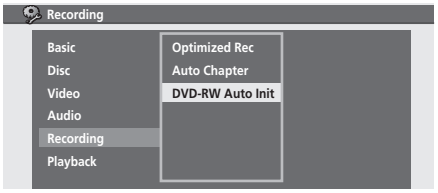
- Default setting: **On**



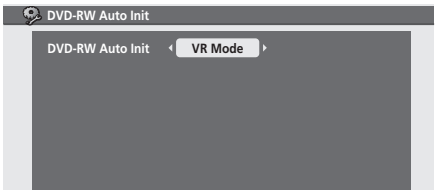
On the default setting, a new chapter is started approximately every 15 minutes.

DVD-RW Auto Init.

- Default setting: **VR Mode**



When you load a new, blank DVD-RW disc the recorder automatically initializes it for recording. You can set it to initialize the disc for **VR mode** or **Video mode** recording.



Playback settings

Parental Lock

Some DVD-Video discs feature a Parental Lock level. If the recorder is set to a lower level than the disc, it will require you to enter a password before the disc will play. This gives you some control about what your children watch on your DVD recorder.

Some discs also support the Country/Area code feature. The recorder does not play certain scenes on these discs depending on the Country/Area code you set.

Before you can set the Parental Lock level or the Country/Area code you must set a password. As the password owner you can change the Parental Lock level or Country/Area code whenever you like. You can also change the password.

Note

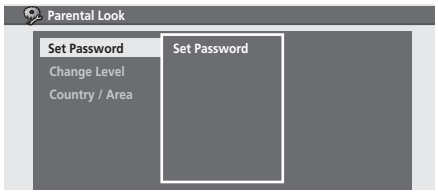
- Not all discs that you may consider inappropriate for your children use the Parental Lock feature. These discs will always play without requiring the password first.
- If you forget the password, you can reset the recorder to its factory settings (see *Resetting the recorder* on page 90), then set a new password.

Set Password

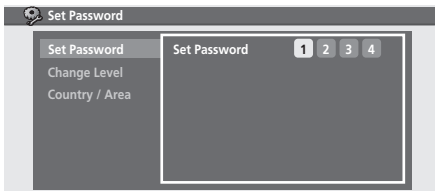
- Default password: *none*

The password you set will enable you to change the Parental Lock level and Country/Area code setting. It is also the password that you will need to enter if you want to play a disc with a parental lock level higher than the recorder.

1 Select 'Set Password'.



2 Use the number buttons to input a four-digit password.

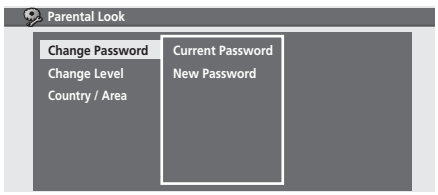


3 Press ENTER to set the password.

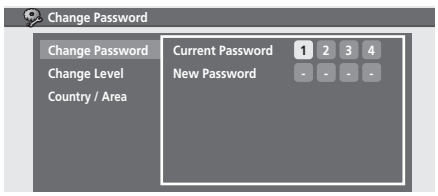
Change Password

To change your password, confirm your existing password then enter a new one.

1 Select 'Change Password'.

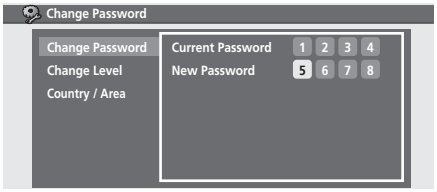


2 Use the number buttons to enter your existing password.



3 Press ENTER.

4 Enter a new password.

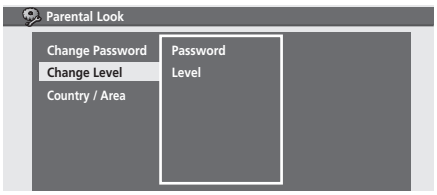


5 Press ENTER.

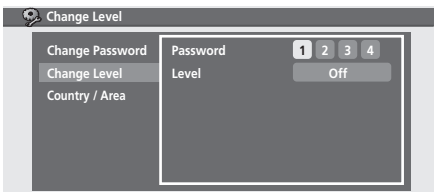
Change Level

- Default level: **Off**

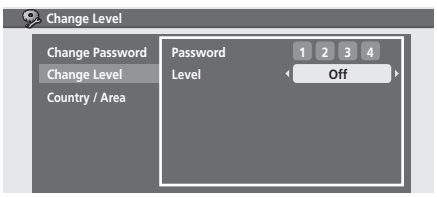
1 Select 'Change Level'.



2 Use number buttons to enter your password, then press ENTER.



3 Use the ⬅/➡ buttons to select a new parental lock level.

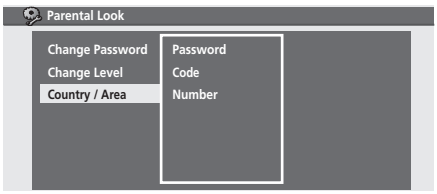


4 Press ENTER to set the new Parental Lock level.

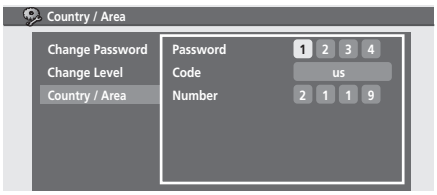
Country/Area

- Default Country/Area code: **us (2119)**

1 Select 'Country / Area'.



2 Use number buttons to enter your password, then press ENTER.

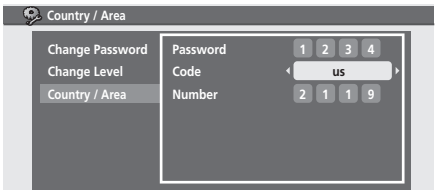


3 Select a Country/Area code.

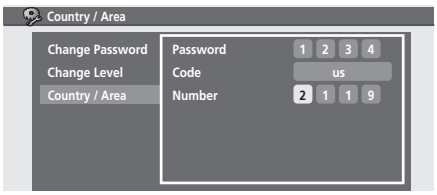
- You may also want to refer to the *Country/Area code list* on page 97.

There are two ways you can set the Country/Area code:.

- Select by code letter: Use the ⬅/➡ buttons to change the code.



- Select by code number: Press ⬇ then use the number buttons to enter the four-digit Country/Area code (you can find the *Country/Area code list* on page 97.)

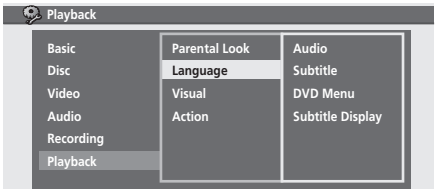


4 Press ENTER to set the new Country/Area code.

Note

- Changing the Country/Area code does not take effect until the next disc is loaded (or the current disc is reloaded).

Language



Use the various Language settings to set the default audio, subtitle and menu languages for DVD discs, as well as subtitle display behavior.

From the Language screen, use the ⬆/⬇ buttons to select a setting, then use the ⬅/➡ buttons to adjust it.

If you want to choose a language other than those listed for audio, subtitles and menus, select **Other** then select another language (see *Selecting 'Other' languages* below).

- **Audio** – This setting is your preferred audio language for DVD discs. If the language you specify here is recorded on a disc, the recorder automatically plays the disc in that language.
- **Subtitle** – This setting is your preferred subtitle language for DVD discs. If the language you specify here is recorded on a disc, the recorder automatically plays the disc with those subtitles.
- **DVD Menu** – Some multilingual discs have disc menus in several languages. This setting specifies in which language the disc menus should appear. Leave on the default setting (**w/Subtitle Language**) for menus to appear in the same language as your **Subtitle** language.
- **Subtitle Display** – When set to **On**, the recorder displays subtitles according to the **Subtitle** setting. Set to **Off** to switch subtitles off altogether (although you may find that some discs override this setting).

Tip

- You can switch between the audio and subtitle languages recorded on a DVD disc any time during playback using the **AUDIO** and **SUBTITLE** buttons. (This does not affect these settings.)

Selecting 'Other' languages

1 Select 'Other' from the language list.
This option appears in the settings for DVD Menu Language, Audio Language, and Subtitle Language.

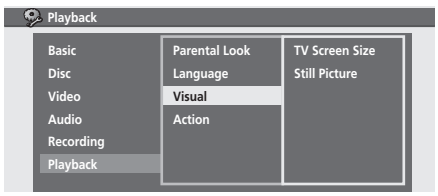
2 Select the language you want.

- Select by language name: Use the ⬅/➡ buttons to change the language.
- Select by code number: Press ⬇ then use the number buttons to enter the four-digit language code.

See *Language code list* on page 97 for a list of available languages and corresponding codes.

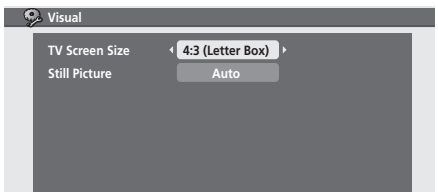
3 Press ENTER to confirm and exit the screen.

Visual settings



Use the Visual settings to specify the kind of TV you have and how still frames should appear when you pause playback of a disc.

From the Visual screen, use the ⬆/⬇ buttons to select a setting, then use the ⬅/➡ buttons to adjust it.

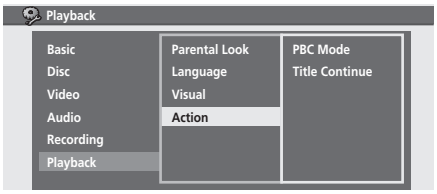


- **TV Screen Size** – If you have a widescreen TV, select the **16:9** setting—widescreen DVD software is then shown using the full screen area. When playing software recorded in conventional (4:3) format, the settings on your TV will determine how the material is presented—see the manual that came with your TV for details on what options are available.

  If you have a conventional TV, choose either **4:3 (Letter Box)** or **4:3 (Pan & Scan)**. In Letter Box mode, widescreen software is shown with black bars at the top and bottom of the screen. Pan & Scan chops the sides off widescreen material to make it fit the 4:3 screen (so even though the picture looks larger on the screen, you're actually seeing less of the movie). See *Screen sizes and disc formats* on page 92 for more information.
- **Still Picture** – The recorder uses one of two processes when displaying a still frame from a DVD disc. The default **Auto** setting automatically chooses the best setting each time.

  The **Frame** setting produces a sharper image, but more prone to shake than field stills.

Action settings



Use the Action settings to specify Video CD playback and DVD title playback behavior.

From the Action screen, use the ⬆/⬇ buttons to select a setting, then use the ⬅/➡ buttons to adjust it.

- **PBC Mode** – Set to **On** to have the recorder automatically start playing Video CDs in playback control (PBC) mode, if possible. Set to **Off** if you prefer to use 'manual' playback.
- **Title Continue** – (VR mode only) Set to **On** to have the recorder start playing the following title immediately after the previous one ends. When set to **Off**, playback stops at the end of a title.

Chapter 9
Additional information

Resetting the recorder

If you need to, you can reset the recorder to all its factory settings.

1 Make sure that the recorder is on.

2 Press and hold ■ and press ⏻ STANDBY/ON.
The recorder turns off with all settings reset.

Setting up the remote to control your TV

You can use the supplied remote to control your TV. To be able to use this feature you first have to program the remote with a maker code from the table on the following page.

1 Switch on your TV.

2 Press and hold down the CLEAR button, then enter the maker code for your TV.
See the table on the next page for the list of maker codes. If there is more than one code given for your make, input the first one in the list.

- If the maker's name of your TV doesn't appear in the table, you will not be able to use this remote to control your TV.

3 Point the remote towards your TV and press ⏻ TV to check that the remote works with your TV.
If the remote is set up correctly, the TV should switch off. If it doesn't and there is another code given for your maker, repeat step **1** with a new code.

Using the TV remote control buttons

The table below shows how to use this remote control with your TV.

Button	What it does
⏻ **TV**	Press to switch the TV on/off (standby)
INPUT	Press to change the TV's video input
TV VOLUME	Use to adjust the TV volume
TV CHANNEL	Use to change TV channels

TV Preset code list

Please note that there are cases where only certain functions may be controllable after assigning the proper preset code, or the codes for the manufacturer in the list will not work for the model that you are using.

ACURA 644
ADMIRAL 631
AIWA 660
AKAI 632, 635, 642
AKURA 641
ALBA 607, 639, 641, 644
AMSTRAD 642, 644, 647
ANITECH 644
ASA 645
ASUKA 641
AUDIOGONIC 607, 636
BASIC LINE 641, 644
BAUR 631, 607, 642
BEKO 638
BEON 607
BLAUPUNKT 631
BLUE SKY 641
BLUE STAR 618
BPL 618
BRANDT 636
BTC 641
BUSH 607, 641, 642, 644, 647, 656
CASCADE 644
CATHAY 607
CENTURION 607
CGB 642
CIMLINE 644
CLARIVOX 607
CLATRONIC 638
CONDOR 638
CONTEC 644
CROSLEY 632
CROWN 638, 644
CRYSTAL 642
CYBERTRON 641
DAEWOO 607, 644, 656
DAINICHI 641
DANSAI 607
DAYTON 644
DECCA 607, 648
DIXI 607, 644
DUMONT 653
ELIN 607
ELITE 641
ELTA 644
EMERSON 642
ERRES 607
FERGUSON 607, 636, 651
FINLANDIA 635, 643, 655
FINLUX 632, 607, 645, 648, 653, 654, 655
FIRSTLINE 640, 644
FISHER 632, 635, 638, 645
FORMENTI 632, 607, 642
FRONTECH 631, 642, 646
FRONTECH/PROTECH 632
FUJITSU 648, 629
FUNAI 640, 646, 658
GBC 632, 642
GE 601, 608, 607, 610, 617, 602, 628, 618
GEC 607, 634, 648
GELOSO 632, 644
GENEXXA 631, 641
GOLDSTAR 610, 623, 621, 602, 607, 650
GOODMANS 607, 639, 647, 648, 656
GORENJE 638
GPM 641
GRAETZ 631, 642
GRANADA 607, 635, 642, 643, 648
GRADIENTE 630, 657
GRANDIN 618
GRUNDIG 631, 653
HANSEATIC 607, 642
HCM 618, 644
HINARI 607, 641, 644
HISAWA 618
HITACHI 631, 633, 634, 636, 642, 643, 654, 606, 610, 624, 625, 618
HUANYU 656
HYPSON 607, 618, 646
ICE 646, 647
IMPERIAL 638, 642
INDIANA 607
INGELEN 631
INTERFUNK 631, 632, 607, 642
INTERVISION 646, 649
ISUKAI 641
ITC 642
ITT 631, 632, 642
JEC 605
JVC 613, 623
KAISUI 618, 641, 644
KAPSCH 631
KENDO 642
KENNEDY 632, 642
KORPEL 607
KOYODA 644
LEYCO 607, 640, 646, 648
LIESENK&TTER 607
LOEWE 607
LUXOR 632, 642, 643
M-ELECTRONIC 631, 644, 645, 654, 655, 656, 607, 636, 651
MAGNADYNE 632, 649
MAGNAFON 649
MAGNAVOX 607, 610, 603, 612, 629
MANESTH 639, 646
MARANTZ 607
MARK 607
MATSUI 607, 639, 640, 642, 644, 647, 648
MEDIATOR 607
MEMOREX 644
METZ 631
MINERVA 631, 653
MITSUBISHI 609, 610, 602, 621, 631
MULTITECH 644, 649
NEC 659
NECKERMANN 631, 607
NEI 607, 642
NIKKAI 605, 607, 641, 646, 648
NOBLIKO 649
NOKIA 632, 642, 652
NORDMENDE 632, 636, 651, 652
OCEANIC 631, 632, 642
ORION 632, 607, 639, 640
OSAKI 641, 646, 648
OSO 641
OSUME 648
OTTO VERSAND 631, 632, 607, 642
PALLADIUM 638
PANAMA 646
PANASONIC 631, 607, 608,642, 622
PATHO CINEMA 642
PAUSA 644
PHILCO 632, 642
PHILIPS 631, 607, 634, 656
PHOENIX 632
PHONOLA 607
PROFEX 642, 644
PROTECH 607, 642, 644, 646, 649
QUELLE 631, 632, 607, 642, 645, 653
R-LINE 607
RADIOLA 607
RADIOSHACK 610, 623, 621, 602
RBM 653
RCA 601, 610, 615, 616, 617, 618, 661, 662, 609
REDIFFUSION 632, 642
REX 631, 646
ROADSTAR 641, 644, 646
SABA 631, 636, 642, 651
SAISHO 639, 644, 646
SALORA 631, 632, 642, 643
SAMBERS 649
SAMSUNG 607, 638, 644, 646
SANYO 635, 645, 648, 621, 614
SBR 607, 634
SCHAUB LORENZ 642
SCHNEIDER 607, 641, 647
SEG 642, 646
MCMICHAEL 634
SEI 632, 640, 649
SELECO 631, 642
SHARP 602, 619, 627
SIAREM 632, 649
SIEMENS 631
SINUDYNE 632, 639, 640, 649
SKANTIC 643
SOLAVOX 631
SONOKO 607, 644
SONOLOR 631, 635
SONTEC 607
SONY 604
SOUNDWAVE 607
STANDARD 641, 644
STERN 631
SUSUMU 641
SYSLINE 607
TANDY 631, 641, 648
TASHIKO 634
TATUNG 607, 648
TEC 642
TELEAVIA 636
TELEFUNKEN 636, 637, 652
TELETECH 644
TENSAI 640, 641
THOMSON 636, 651, 652, 663
THORN 631, 607, 642, 645, 648
TOMASHI 618
TOSHIBA 605, 602, 626, 621, 653
TOWADA 642
ULTRAVOX 632, 642, 649
UNIVERSUM 631, 607, 638, 642, 645, 646, 654, 655
VESTEL 607
VICTOR 613
VOXSON 631
WALTHAM 643
WATSON 607
WATT RADIO 632, 642, 649
WHITE
WESTINGHOUSE 607
YOKO 607, 642, 646
ZENITH 603, 620
PIONEER 600, 631, 632, 607, 636, 642, 651

Screen sizes and disc formats

When viewing on a standard TV or monitor

Screen format of disc	Setting	Appearance
16:9	**4:3 (Letter Box)**	The program is shown in widescreen with black bars at the top and bottom of the screen.
	4:3 (Pan & Scan)	The sides of the program are cropped so that the picture fills the whole screen.
4:3	**16:9**	The program appears squashed. Set to either **4:3 (Letter Box)** or **4:3 (Pan & Scan)**.
	4:3 (Letter Box) **4:3 (Pan & Scan)**	The program is presented correctly on either setting.

When viewing on a widescreen TV or monitor

Screen format of disc	Setting	Appearance
16:9	**16:9**	The program is presented in widescreen.
4:3	**16:9**	Your TV will determine how the picture is presented—check the manual that came with the TV for details.

Troubleshooting

Incorrect operation is often mistaken for trouble and malfunction. If you think there is something wrong with this component, please check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used. If the trouble cannot be rectified even after checking the points below, ask your nearest Pioneer authorized service center or your dealer to carry out repair work.

General

Problem	Remedy
The disc is automatically ejected after closing the disc tray	• Check that the disc is not a DVD-RAM, DVD+R/RW, DualDisc or other incompatible format disc (page 37). • Check that the disc is loaded properly (aligned in disc tray and label-side up). • Take out the disc and clean it (page 99). • Check that the disc has a region code compatible with the recorder (page 101).
No picture	• Check that everything is connected properly (page 39). • Check that the connected TV and/or the AV amp/receiver is set to the correct input. • The recorder may be set to progressive-scan with an incompatible TV. Reset to interlace by pressing and holding the **+** button (front panel) then pressing ⏻ **STANDBY/ON** (front panel).
Can't play a disc	• Check that the disc is not a DVD-RAM, DVD+R/RW, DualDisc or other incompatible format disc (page 37). • Take out the disc and clean it (page 99). • Check that the disc is loaded properly (aligned in disc tray and label-side up). • There may be condensation in the recorder. Leave the recorder for an hour or so for the condensation to evaporate.
All settings are reset	• If the recorder is unplugged (or there is a power failure) while the recorder is on, all the settings will be lost. • Make sure that you switch the recorder into standby before unplugging the power cord.
Screen goes blank and controls are inoperative	• Press ■ then restart playback.
Remote control does not work	• If you connected this recorder to the receiver subwoofer using the **CONTROL IN** jack, point the remote control at the display unit of the receiver subwoofer to use (page 15). • Set the remote control to the same ID number as the recorder (page 80). (When the batteries run down, the remote mode is automatically reset to 1.) • Use the remote within its operating range (page 15). • Replace the batteries (page 15).
No sound or sound is distorted	• Make sure that the receiver subwoofer or TV is set to the correct input and the volume turned up. • There is no sound when the picture is paused, or during scanning (even forwards at regular play speed) or slow motion play. Press ► to resume regular playback. • DTS audio can only be played back if the recorder's digital output is connected to the receiver subwoofer. If connected to your TV, your TV must have a DTS decoder for you to be able to enjoy DTS sound. • Some 96kHz discs do not output audio through the digital jack. • Check the coaxial and analog audio cable connections (page 39). • If the sound is distorted, try cleaning the cable plugs.
The picture from the external input is distorted	• If the video signal from the external component is copy-protected, you cannot connect via this recorder. Connect the component directly to your TV.

Problem	Remedy
Screen is stretched vertically or horizontally	• Make sure that the **TV Screen Size** setting (page 89) is correct for the kind of TV you have (see also page 92). • If you have a widescreen TV, check its aspect ratio settings. • This recorder's input switches into wide mode automatically according to the input signal. When the unit connected is not compatible with ID-1, set the connected component to output 4:3 aspect ratio (standard) video.
Can't play a disc recorded using this recorder on another player	• If the disc was recorded in Video mode, make sure that it's finalized (page 70). • Some players will not play recordable DVD discs, even when recorded in Video mode and finalized. • If the disc was recorded in VR mode, the other player must be specifically RW compatible in order to play it (page 37). • discs recorded with copy-once material cannot be played on non-CPRM compatible players (page 64).
During playback the picture is dark or distorted	• When a copy-protected disc is played via a VCR, the picture will not display correctly. Connect the recorder directly to your TV.
Can't record or does not record successfully	• Check that there is some remaining blank space on the DVD. • Check that the disc isn't already finalized. • A DVD disc may contain up to 99 (Original) titles and 999 chapters. Check that these limits have not been reached. • Check that the source you are trying to record is not copy protected. • For a VR formatted disc, check that the disc isn't locked (page 81). • This recorder cannot record NTSC signals. • The power may have failed during recording.
Timer program doesn't record successfully	• When setting the recording channel, make sure you set the recorder's built-in TV tuner, not the TV's built-in tuner. • When recording to a Video mode disc, programs that are copy-once protected cannot be recorded. Use a VR mode formatted disc for copy-once material (page 64). • Two timer programs may have overlapped, in which case only the earlier one will record completely. • The power may have failed during recording.
After briefly unplugging or after a power failure the front panel display shows '--:--'	• Reset the clock and other recorder settings to use the recorder again.
Front panel display shows 'LOCK' when a button is pressed	• The Child Lock is on; turn off in order to use the recorder (page 69).
The picture freezes and the front panel and remote control buttons stop working	• Press the front panel ⏻ **STANDBY/ON** button to switch the power off, then switch back on and restart playback. If the power fails to switch off, press and hold ⏻ **STANDBY/ON** for 10 seconds until the power switches off.

- If the unit does not operate normally due to external effects such as static electricity, disconnect the power plug from the outlet and insert again to return to normal operating conditions.
- If power to the recorder is cut (due to a power outage, the plug being pulled from the power outlet, etc.) during recording, editing, initializing, finalizing, or other operation, some recorded material on the disc, or the disc itself, may become unusable. In this case, try re-initializing the disc (DVD-RW only), or use a new disc. Pioneer is not responsible for lost recordings, damaged discs or other losses in these cases.

Frequently asked questions

In this section you can find answers to frequently asked questions on how to use your DVD recorder and what it can do.

- *What kind of discs can I use for recording?*

  You can use DVD-R and DVD-RW discs for recording. DVD-RAM, CD-R and CD-RW discs are not recordable using this recorder.

  See *General disc compatibility* on page 37 for more details.

- *Can I watch recordings made using this recorder on other DVD players?*

  Yes. Use a DVD-R disc for you recordings (these are always recorded in Video mode). After recording, finalize the disc to make it playable on other DVD players (note that you cannot make further recordings on the disc after finalizing it).

  If you want to use a DVD-RW disc, make sure that it's initialized for recording in Video mode. As with a DVD-R, finalize the disc after recording to make it playable in other players.

  See also *Playing your recordings on other DVD players* on page 70.

- *Can I edit recordings, or erase parts of recordings from a disc?*

  Yes. Recording to a VR mode DVD-RW disc gives you the most flexibility when editing. By default, when you load a new DVD-RW disc into the recorder it is initialized for recording in VR mode.

  See also *Editing* on page 72.

- *Can I play a VR mode DVD-RW disc in another DVD player?*

  Look for the 'RW Compatible' mark on the other DVD player to see if it will play VR mode DVD-RW discs. If the player does not recognize the disc when you load it, try finalizing it in the recorder, then try again.

  See also *Playing your recordings on other DVD players* on page 70.

- *Can I record a copy-once protected program from a subscription satellite or cable channel?*

  Yes, but you'll need to use a CPRM-compatible DVD-RW disc initialized for VR mode recording. (Look on the disc package to see if it is CPRM compatible.)

  See also *CPRM* on page 64.

- *I changed the batteries in the remote control and now it doesn't work!*

  Most likely the remote control ID does not match the recorder. After changing the batteries, the remote ID is reset to 1; if the recorder is set to something else, the remote will not work with it.

  See *Remote Control* on page 80 for how to set the ID of the recorder and the remote.

Time Zone list

Country / City	Time Zone
England / London	GMT
Iceland / Reykjavik	GMT
Ireland / Dublin	GMT
Portugal / Lisbon	GMT
Scotland / Glasgow	GMT
Spain / Canary Islands	GMT
Wales / Cardiff	GMT
Austria / Vienna	GMT +1:00
Belgium / Brussels	GMT +1:00
Bosnia - Herzegovina / Sarajevo	GMT +1:00
Croatia / Split	GMT +1:00
Czech Republic / Prague	GMT +1:00
Denmark / Copenhagen	GMT +1:00
France / Paris	GMT +1:00
Germany / Berlin	GMT +1:00
Hungary / Budapest	GMT +1:00
Italy / Rome	GMT +1:00
Luxembourg / Luxembourg	GMT +1:00
Macedonia / Skopje	GMT +1:00
Malta / Valletta	GMT +1:00
Netherlands / Amsterdam	GMT +1:00
Norway / Oslo	GMT +1:00
Poland / Warsaw	GMT +1:00
Serbia and Montenegro / Belgrade	GMT +1:00
Slovakia / Bratislava	GMT +1:00
Slovenia / Ljubljana	GMT +1:00
Spain / Madrid	GMT +1:00
Sweden / Stockholm	GMT +1:00
Switzerland / Geneva	GMT +1:00
Belarus/Minsk	GMT +2:00
Bulgaria / Sofia	GMT +2:00
Cyprus / Nicosia	GMT +2:00
Estonia / Tallinn	GMT +2:00
Finland / Helsinki	GMT +2:00
Greece / Athens	GMT +2:00
Latvia / Riga	GMT +2:00
Lithuania / Vilnius	GMT +2:00

Country / City	Time Zone
Romania / Bucharest	GMT +2:00
Russia / Kaliningrad	GMT +2:00
South Africa / Johannesburg	GMT +2:00
Turkey / Istanbul	GMT +2:00
Ukraine / Kiev	GMT +2:00
Georgia / Tbilisi	GMT +3:00
Russia / Moscow	GMT +3:00
Armenia / Jerevan	GMT +4:00
Azerbaijan / Baku	GMT +4:00
Russia / Samara	GMT +4:00
Russia / Yekaterinburg	GMT +5:00
Russia / Novosibirsk	GMT +6:00
Russia / Omsk	GMT +6:00
Russia / Krasnoyarsk	GMT +7:00
Australia / Perth	GMT +8:00
Russia / Irkutsk	GMT +8:00
Russia / Yakutsk	GMT +9:00
Australia / Adelaide	GMT +9:30
Australia / Darwin	GMT +9:30
Australia / Brisbane	GMT +10:00
Australia / Hobart	GMT +10:00
Australia / Melbourne	GMT +10:00
Australia / Sydney	GMT +10:00
Australia / Victoria	GMT +10:00
Russia / Vladivostok	GMT +10:00
New Caledonia / Noumea	GMT +11:00
Russia / Magadan	GMT +11:00
Fiji / Suva	GMT +12:00
New Zealand / Wellington	GMT +12:00
Russia / Kamchatka	GMT +12:00
Marshall Islands / Eniwetok Atoll	GMT +12:00
Marshall Islands / Kwajalein Atoll	GMT +12:00
Samoa / Apia	GMT –11:00

Language code list

Language (Language code letter), **Language code**

Japanese (ja), **1001**
English (en), **0514**
French (fr), **0618**
German (de), **0405**
Italian (it), **0920**
Spanish (es), **0519**
Chinese (zh), **2608**
Dutch (nl), **1412**
Portuguese (pt), **1620**
Swedish (sv), **1922**
Russian (ru), **1821**
Korean (ko), **1115**
Greek (el), **0512**
Afar (aa), **0101**
Abkhazian (ab), **0102**
Afrikaans (af), **0106**
Amharic (am), **0113**
Arabic (ar), **0118**
Assamese (as), **0119**
Aymara (ay), **0125**
Azerbaijani (az), **0126**
Bashkir (ba), **0201**
Byelorussian (be), **0205**
Bulgarian (bg), **0207**
Bihari (bh), **0208**
Bislama (bi), **0209**
Bengali (bn), **0214**
Tibetan (bo), **0215**
Breton (br), **0218**
Catalan (ca), **0301**
Corsican (co), **0315**
Czech (cs), **0319**
Welsh (cy), **0325**
Danish (da), **0401**
Bhutani (dz), **0426**
Esperanto (eo), **0515**
Estonian (et), **0520**
Basque (eu), **0521**
Persian (fa), **0601**
Finnish (fi), **0609**
Fiji (fj), **0610**
Faroese (fo), **0615**
Frisian (fy), **0625**
Irish (ga), **0701**
Scots-Gaelic (gd), **0704**
Galician (gl), **0712**
Guarani (gn), **0714**
Gujarati (gu), **0721**
Hausa (ha), **0801**
Hindi (hi), **0809**
Croatian (hr), **0818**
Hungarian (hu), **0821**
Armenian (hy), **0825**
Interlingua (ia), **0901**
Interlingue (ie), **0905**
Inupiak (ik), **0911**
Indonesian (in), **0914**
Icelandic (is), **0919**
Hebrew (iw), **0923**
Yiddish (ji), **1009**
Javanese (jw), **1023**
Georgian (ka), **1101**
Kazakh (kk), **1111**
Greenlandic (kl), **1112**
Cambodian (km), **1113**
Kannada (kn), **1114**
Kashmiri (ks), **1119**
Kurdish (ku), **1121**
Kirghiz (ky), **1125**
Latin (la), **1201**
Lingala (ln), **1214**
Laothian (lo), **1215**
Lithuanian (lt), **1220**
Latvian (lv), **1222**
Malagasy (mg), **1307**
Maori (mi), **1309**
Macedonian (mk), **1311**
Malayalam (ml), **1312**
Mongolian (mn), **1314**
Moldavian (mo), **1315**
Marathi (mr), **1318**
Malay (ms), **1319**
Maltese (mt), **1320**
Burmese (my), **1325**
Nauru (na), **1401**
Nepali (ne), **1405**
Norwegian (no), **1415**
Occitan (oc), **1503**
Oromo (om), **1513**
Oriya (or), **1518**
Panjabi (pa), **1601**
Polish (pl), **1612**
Pashto, Pushto (ps), **1619**
Quechua (qu), **1721**
Rhaeto-Romance (rm), **1813**
Kirundi (rn), **1814**
Romanian (ro), **1815**
Kinyarwanda (rw), **1823**
Sanskrit (sa), **1901**
Sindhi (sd), **1904**
Sangho (sg), **1907**
Serbo-Croatian (sh), **1908**
Sinhalese (si), **1909**
Slovak (sk), **1911**
Slovenian (sl), **1912**
Samoan (sm), **1913**
Shona (sn), **1914**
Somali (so), **1915**
Albanian (sq), **1917**
Serbian (sr), **1918**
Siswati (ss), **1919**
Sesotho (st), **1920**
Sundanese (su), **1921**
Swahili (sw), **1923**
Tamil (ta), **2001**
Telugu (te), **2005**
Tajik (tg), **2007**
Thai (th), **2008**
Tigrinya (ti), **2009**
Turkmen (tk), **2011**
Tagalog (tl), **2012**
Setswana (tn), **2014**
Tonga (to), **2015**
Turkish (tr), **2018**
Tsonga (ts), **2019**
Tatar (tt), **2020**
Twi (tw), **2023**
Ukrainian (uk), **2111**
Urdu (ur), **2118**
Uzbek (uz), **2126**
Vietnamese (vi), **2209**
Volapük (vo), **2215**
Wolof (wo), **2315**
Xhosa (xh), **2408**
Yoruba (yo), **2515**
Zulu (zu), **2621**

Country/Area code list

Country/Area, **Country/Area code**, **Country/Area code letter**

Argentina, **0118**, **ar**
Australia, **0121**, **au**
Austria, **0120**, **at**
Belgium, **0205**, **be**
Brazil, **0218**, **br**
Canada, **0301**, **ca**
Chile, **0312**, **cl**
China, **0314**, **cn**
Denmark, **0411**, **dk**
Finland, **0609**, **fi**
France, **0618**, **fr**
Germany, **0405**, **de**
Hong Kong, **0811**, **hk**
India, **0914**, **in**
Indonesia, **0904**, **id**
Italy, **0920**, **it**
Japan, **1016**, **jp**
Korea, Republic of, **1118**, **kr**
Malaysia, **1325**, **my**
Mexico, **1324**, **mx**
Netherlands, **1412**, **nl**
New Zealand, **1426**, **nz**
Norway, **1415**, **no**
Pakistan, **1611**, **pk**
Philippines, **1608**, **ph**
Portugal, **1620**, **pt**
Russian Federation, **1821**, **ru**
Singapore, **1907**, **sg**
Spain, **0519**, **es**
Sweden, **1905**, **se**
Switzerland, **0308**, **ch**
Taiwan, **2023**, **tw**
Thailand, **2008**, **th**
United Kingdom, **0702**, **gb**
USA, **2119**, **us**

On-screen displays and recorder displays

The table below shows a list of error messages that you may encounter when using the recorder and an explanation of their meaning.

Message	Explanation/Action
• Initializing disc. Please wait a moment.	When you load a blank DVD-RW disc, the recorder automatically initializes it.
• Incompatible region number.	The disc loaded has an incompatible region number for the recorder and so will not play.
• Cannot record any more titles. **• No more space for file management data.** **• Cannot add any more chapter marks.**	The disc control data limit has been reached, or the maximum number of chapters and/or titles has been reached. Erase titles/chapters or combine chapters.
• This disc cannot be recorded. Undo the finalization.	The disc was finalized on a non-Pioneer DVD recorder. Undo the finalization in order to recording/editing.
• Cannot play this disc. **• This disc cannot be recorded.** **• Cannot read the CPRM information.** **• Could not record the information to the disc.** **• Cannot edit.** **• Could not initialize disc.** **• Could not complete finalization successfully.** **• Could not undo finalization successfully.** **• Could not successfully unlock the disc.**	The disc may be dirty or damaged. Take out the disc, clean it and retry. If the error persists, use a new disc. If the error appears even with a new disc, please consult a Pioneer Service Center.
• Incompatible or unreadable disc.	The disc loaded is a DVD-RAM, DVD+R/RW or some other incompatible disc type. This display may also appear if the disc is dirty or damaged.
• Cannot record to a disc that is not CPRM compatible. **• Cannot record this content using Video mode recording.**	The video source is copy-once protected. Use a VR mode DVD-RW disc with CPRM for recording.
• This content is copy protected.	The video source is copy-protected and cannot be recorded.
• Incorrect CPRM information.	The recorder could not read the CPRM information. The recorder may be damaged—please consult a Pioneer Service Center.
• The audio will conform to the [Bilingual Recording] setting.	When recording from an external input in Video mode, or in VR mode set to **XP**, you can only record the left or right channel; not both.
• Operation stopped due to power failure.	If during recording the power plug is disconnected from the power outlet, this message will be displayed the next time the recorder is switched on. In this case, the recording will not be recoverable.
• Repairing disc.	This message is displayed when, due to damage or recording conditions, the recorder attempts to repair a disc.
• Could not repair the disc.	The recorder was unable to repair the disc.
• Overheating has stopped operation. Press DISPLAY to clear this message.	The internal temperature of the recorder has exceeded the operating limit. If this message reappears, please contact a Pioneer authorized service center.

Handling discs

When holding discs of any type, take care not to leave fingerprints, dirt or scratches on the disc surface. Hold the disc by its edge or by the center hole and edge.

Damaged or dirty discs can affect playback and recording performance. Take care also not to scratch the label side of the disc. Although not as fragile as the recorded side, scratches can still result in a disc becoming unusable.

Should a disc become marked with fingerprints, dust, etc., clean using a soft, dry cloth, wiping the disc lightly from the center to the outside edge as shown in the diagram below.

If necessary, use a cloth soaked in alcohol, or a commercially available CD/DVD cleaning kit to clean a disc more thoroughly. Never use benzine, thinner or other cleaning agents, including products designed for cleaning vinyl records.

Storing discs

Although CDs and DVD discs are more durable than vinyl records, you should still take care to handle and store discs correctly. When you're not using a disc, return it to its case and store upright. Avoid leaving discs in excessively cold, humid, or hot environments (including under direct sunlight).

Don't glue paper or put stickers onto the disc, or use a pencil, ball-point pen or other sharp-tipped writing instrument. These could all damage the disc.

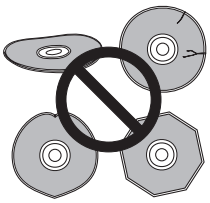
For more detailed care information see the instructions that come with discs.

Do not load more than one disc into the recorder.

Damaged discs

Discs spin at high speed inside the recorder. If you can see that a disc is cracked, chipped, warped, or otherwise damaged, don't risk using it; you could end up damaging the recorder.

This recorder is designed for use with conventional, fully circular discs only. Use of shaped discs is not recommended for this product. Pioneer disclaims all liability arising in connection with the use of shaped discs.



Cleaning the pickup lens

The DVD recorder's lens should not become dirty in normal use, but if for some reason it should malfunction due to dust or dirt, consult your nearest Pioneer-authorized service center. Although lens cleaners for CD players are commercially available, we do not recommend using them since some may damage the lens.

Condensation

Condensation may form inside the recorder if it is brought into a warm room from outside, or if the temperature of the room rises quickly. Although the condensation won't damage the recorder, it may temporarily impair its performance. For this reason you should leave it to adjust to the warmer temperature for about an hour before switching on and using.

Hints on installation

We want you to enjoy using this unit for years to come, so please bear in mind the following points when choosing a suitable location for it:

do...

✓ Use in a well-ventilated room.

✓ Place on a solid, flat, level surface, such as a table, shelf or stereo rack.

don't...

× Use in a place exposed to high temperatures or humidity, including near radiators and other heat-generating appliances.

× Place on a window sill or other place where the recorder will be exposed to direct sunlight.

× Use in a dusty or damp environment or in a room where it will be exposed to excessive cigarette smoke.

× Place directly on top of an amplifier, or other component in your stereo system that becomes hot in use.

× Use near a television or monitor as you may experience interference—especially if the television uses an indoor antenna.

× Use in a kitchen or other room where the recorder may be exposed to smoke or steam.

× Use on a thick rug or carpet, or cover with cloth—this may prevent proper cooling of the unit.

× Place on an unstable surface, or one that is not large enough to support all four of the unit's feet.

Moving the recorder

If you need to move the recorder, first remove the disc, if there's one loaded, and close the disc tray. Next, press ⏻ **STANDBY/ON** to switch the power to standby, checking that the **OFF** indication in the display goes off. Lastly, disconnect the power cord. Never lift or move the unit during playback or recording—discs rotate at a high speed and may be damaged.

Glossary

Analog audio

An electrical signal that directly represents sound. Compare this to digital audio which can be an electrical signal, but is an indirect representation of sound. See also *digital audio*.

Aspect ratio

The width of a TV screen relative to its height. Conventional TVs are 4:3 (in other words, the screen is almost square); widescreen models are 16:9 (the screen is almost twice as wide as it is high).

Chapter

Just as a book is split up into several chapters, a title on a DVD disc is usually divided into chapters. See also *Title*.

Digital audio

An indirect representation of sound by numbers. during recording, the sound is measured at discrete intervals (44,100 times a second for CD audio) by an analog-to-digital converter, generating a stream of numbers. On playback, a digital-to-analog converter generates an analog signal based on these numbers. See also *Sampling frequency* and *Analog audio*.

Dolby Digital

Dolby® Digital Recording enables consumers to record high-quality video with stereo sound on recordable DVD discs. The technology, when utilized instead of PCM recording, also saves recordable disc space, allowing for higher video resolution or extended recording time on each DVD. DVDs created using Dolby Digital Recording will play back on all DVD-Video players.

Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

DTS

DTS stands for Digital Theater System. DTS is a surround system different from Dolby Digital that has become a popular surround sound format for movies.

"DTS" and "DTS Digital Out" are registered trademarks of digital Theater Systems, Inc.

Dynamic range
The difference between the quietest and loudest sounds possible in an audio signal (without distorting or getting lost in noise). Dolby Digital and DTS soundtracks are capable of a wide dynamic range, delivering dramatic cinema-like effects.

File extension
A tag added to the end of a filename to indicate the type of file. For example, ".mp3" indicates an MP3 file.

ISO 9660 format
International standard for the volume and file structure of CD-ROM discs.

MP3
MP3 (MPEG1 audio layer 3) is a compressed audio file format. Files are recognized by their file extension ".mp3" or ".MP3".

MPEG audio

MPEG Multichannel

An audio format used on Video CDs and some DVD discs. This unit can convert MPEG audio to PCM format for wider compatibility with digital recorders and AV amp/receivers. See also *PCM*.

MPEG video
The video format used for Video CDs and DVDs. Video CD uses the older MPEG-1 standard, while DVD uses the newer and much better quality MPEG-2 standard.

PCM (Pulse Code Modulation)
The most common system of encoding digital audio, found on CDs and DAT. Excellent quality, but requires a lot of data compared to formats such as Dolby Digital and MPEG audio. For compatibility with digital audio recorders (CD, MD and DAT) and AV amp/receivers with digital inputs, this unit can convert Dolby Digital and MPEG audio to PCM. See also *Digital audio*.

PBC (PlayBack Control) (Video CD only)
A system of navigating a Video CD through on-screen menus recorded onto the disc. Especially good for discs that you would normally not watch from beginning to end all at once—karaoke discs, for example.

Progressive scan video
Also called non-interlaced video, this method of displaying a picture updates all the lines in one pass, resulting in a more stable, flicker-free image than interlaced video (for a given scanning rate).

PureCinema
DVD-Video may be either video material (originally shot on video) or film material (originally shot film). Video material has a frame rate of 30 frames per second (fps) (NTSC) or 25 fps (PAL), compared with film's 24 fps. This recorder converts film material to 50 fps (in progressive scan mode) for 625 progressive scan output.

Regions (DVD only)

(example region code marks)

Regions associate discs and players with particular areas of the world. This unit will only play discs that have compatible region codes. You can find the region code of your unit by looking on the rear panel. Some discs are compatible with more than one region (or all regions).

Sampling frequency
The rate at which sound is measured to be turned into digital audio data. The higher the rate, the better the sound quality, but the more digital information is generated. Standard CD audio has a sampling frequency of 44.1kHz, which means 44,100 samples (measurements) per second. See also *Digital audio*.

Title
A collection of chapters on a DVD disc. See also *Chapter*.

Track
Audio CDs and Video CDs use tracks to divide up the content of a disc. The DVD equivalent is called a chapter. See also *Chapter*.

Specifications

General

System . . . . . DVD-Video, DVD-R/RW, Video-CD, CD, CD-R/RW (MP3, CD-DA)
Power requirements . . . . . .220–240 V, 50/60 Hz
Power Consumption . . . . . 25 W
Power consumption in standby mode . . . . . .0.6 W (Front panel display: off, Power Save: Mode 2)
Weight . . . . . 3.3 kg
Dimensions . . . . . 420 (W) x 69 (H) x 333 (D) mm
Operating temperature . . . . . +5°C to +35°C
Operating humidity . . . . . .5% to 85% (no condensation)
TV system . . . . . PAL/SECAM

Recording

Recording format . . . . . DVD Video Recording DVD-VIDEO

Recordable discs

DVD-RW (DVD Re-recordable disc)
DVD-R (DVD Recordable disc)

Video recording format

Sampling frequency 13.5MHz
Compression format . . . . . MPEG

Audio recording format

Sampling frequency 48kHz
Compression format . . . . . .Dolby Digital or Linear PCM (uncompressed)

Recording time

XP (XP) . . . . . Approx. 1 hour
Standard Play (SP) . . . . . Approx. 2 hours
Long Play (LP) . . . . . Approx. 4 hours
Extended Play (EP) . . . . . Approx. 6 hours
Super Long Play (SLP) . . . . . Approx. 8 hours
Super Extended Play (SEP) . . .Approx. 10 hours (VR mode) Aprrox. 12 hours (Video mode)

Tuner

Receivable channels

	PAL B/G		PAL I	
	Frequency	Channel	Frequency	Channel
VHF (low)	47 - 89 MHz	E2 - E4 X - Z	44 - 89 MHz	A - C X - Z
VHF (high)	104 - 300 MHz	E5 - E12 S1 - S20 M1 - M10 U1 - U10	104 - 300 MHz	D - J 11, 13 S1 - S20
Hyper	302 - 470 MHz	S21 - S41	302 - 470 MHz	S21 - S41
UHF	470 - 862 MHz	E21 - E69	470 - 862 MHz	E21 - E69

	SECAM L		SECAM D/K	
	Frequency	Channel	Frequency	Channel
VHF (low)	49 - 65 MHz	2 - 4	49 - 94 MHz	R1 - R5
VHF (high)	104 - 300 MHz	5 - 10 B - Q	104 - 300 MHz	R6 - R12 S1 - S20
Hyper	300 - 470 MHz	S21 - S41	302 - 470 MHz	S21 - S41
UHF	470 - 862 MHz	21 - 69	470 - 862 MHz	E21 - E69

STEREO
B/G - A2
I - NICAM
L - NICAM
B/G - NICAM
D/K - NICAM

Timer

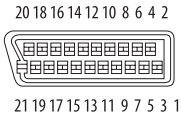
Programs . . . . . .1 month/32 programs
Clock . . . . . .Quartz lock (24-hour/24-hour digital display)

Input/Output

VHF/UHF antenna input/output terminal . . . . VHF/UHF set 75 Ω (IEC connector)
Video input . . . . . Input 1 (rear), 2 (front)
Input level . . . . . 1 Vp-p (75 Ω)
Jacks . . . . . AV connector 2 (input 1) RCA jack (input 2)
Video output AV1/Output
Output level . . . . . 1 Vp-p (75 Ω)
Jacks . . . . . AV connector 1 (AV1) RCA jack (Output)
S-Video input . . . . . Input 1
Y (luminance) - Input level . . . . . 1 Vp-p (75 Ω)
C (color) - Input level . . . . . 286 mVp-p (75 Ω)
Jacks . . . . . AV connector 2
S-Video output . . . . . AV1 / Output
Y (luminance) - Output level . . . . . 1 Vp-p (75 Ω)
C (color) - Output level . . . . . 286 mVp-p (75 Ω)
Jacks . . . . . .AV connector 1 (AV1), 4 pin mini DIN
Component video output
Output level . . . . . .Y: 1.0 Vp-p (75 Ω) PB, PR: 0.7 Vp-p (75 Ω)
Jacks . . . . . RCA jacks
Audio input . . . . . Input 1 (rear), 2 (front) L/R
Input level
During audio input . . . . . 2V rms (Input impedance: more than 22 kΩ)
Jacks . . . . . AV connector 2, RCA jacks

RGB output
Output level . . . . . 0.7 Vp-p (75 Ω)
Jacks . . . . . AV connector 1 (AV1)
Audio output . . . . . .AV1 Output
During audio output . . . . . 2V rms
(Output impedance: less than 1.5 kΩ)
Jacks . . . . . AV connector 1 (AV1), RCA jacks
Digital Audio output . . . . . Coaxial digital output 1
Jacks . . . . . .RCA jacks

AV Connectors (21-pin connector assignment)
AV connector input/output . . . . . 21-pin connector
This connector provides the video and audio signals for connection to a compatible color TV or monitor.



PIN no.	AV1(RGB)-TV / AV2(INPUT 1)
1	Audio 2/R out / Audio 2/R out
2	– / Audio 2/R in
11	G out / –
3	Audio 1/L out / Audio 1/L out
6	– / Audio 1/L in
15	R or C out / C in
4	GND
17	GND
7	B out / –
19	Video out or Y out / Video out
20	– / Video in or Y in
8	Status
21	GND

Supplied accessories

Audio / Video cable (red/white/yellow) 1
RF antenna cable 1
Power cable 1

Note: The specifications and design of this product are subject to change without notice, due to improvement.

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If you want to dispose this product, do not mix it with general household waste. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery and recycling.

Private households in the 25 member states of the EU, in Switzerland and Norway may return their used electronic products free of charge to designated collection facilities or to a retailer (if you purchase a similar new one).

For countries not mentioned above, please contact your local authorities for the correct method of disposal.

By doing so you will ensure that your disposed product undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health.

www.pioneer.co.uk

www.pioneer-eur.com

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